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Medical Records Systems Assessment of Family Health Facilities in Egypt

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Abstract

The pilot project for Family Health care in Alexandria has implemented a new service delivery mechanism at its Family Health Units. A key feature of the pilot model is the maintenance of comprehensive Medical Records in which the entire medical record for all family members is kept in a “Family File Folder” for use by the Family Doctors at the clinics.

After the new care model was operating effectively at a few pilot sites, a study of the Medical Records system was conducted to review the entire Medical Records infrastructure, including physical file storage, equipment and supplies, staffing, forms used, procedures and policies for use of the files, patient flow systems, quality of data, capture of referral data and automated systems in use to support Medical Records. This study will also assist the Family Health Fund in its effort to audit delivery of integrated primary health care. This Report documents the findings of the study and makes recommendations for improvement of the Medical Records System.

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Acronyms

CRHP	Cost Recovery Health Program
DX	Diagnosis
ENT	Ears, Nose and Throat
FFF	Family File Folder
FHC	Family Health Center
FHF	Family Health Fund
FHU	Family Health Unit
FP	Family Practitioner
H/P	History and Physical
HIO	Health Insurance Organization
MIS	Management Information Systems
MOHP	Ministry of Health and Population
MRD	Medical Records Department
OPD	Outpatient Department
NICHP	National Information Center for Health and Population
PBS	Patient Based System
PHR	Partnerships for Health Reform
QI	Quality Improvement
SOW	Scope of Work
TSO	Technical Support Office
TST	Technical Support Team
USAID	United States Agency for International Development

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This report would not have been as in-depth or complete without the input of many individuals with whom the consultant visited. During these visits, copies of the consultant's Scope of Work (SOW) were distributed and were the basis for much of the discussion. Their cooperation and input during the many meetings was vital and we would like to express sincere gratitude for their support and encouragement.

The consultant spent over two hours sharing the key elements in the SOW and responding to questions during visit with Dr. Esmat Mansour, Undersecretary for Health, MOHP, and a team of key senior advisors and MOHP officials.

Two visits with Dr. Hassan Abou Zeid, Undersecretary for Health, Health Directorate of Alexandria, proved most supportive. After discussing the scope of work, a return visit was made to discuss the results of a focused assessment of the patient referral procedures of the Family Health Fund (FHF) facilities. Dr. Hassan graciously agreed to support the recommended patient referral procedures with initial activity beginning in June regarding the transportation and dissemination of patient care referral documents among participating facilities.

During the initial visit with Dr. Mahdeya Aly, Director, and the technical staff of the Technical Support Team (TST) in Alexandria, over two hours were spent discussing key elements of the SOW, the approach to conducting the assessment, and the support needed from the TST. The TST was invaluable in its support and assistance, making the assessment more in-depth, valuable and informative.

The same support was received from the directors and senior staff at key referral facilities, including Dr. Mohamed Hiaty, Director of Sharq El Medina Hospital, Dr. Galaa' El Hawari, Medical Director, Gamal Abdel Nasser Hospital, and Dr. Mahmoud El Damati, Director of Abu Qir General Hospital. Their recommendations and support regarding the patient referral system provided the necessary cooperation and support so critical in effecting a successful outcome.

Numerous meetings with the directors, providers, nurses, Medical Records Department staff and other key facility staff at the family health centers (FHCs) and family health units (FHUs) regarding the assessment and their feedback and suggestions proved invaluable.

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Mr. Ahmed El Sayyed, MRD technician, and Ms. Mona Halim, Secretary, Medical Records Committee

Dr. Emil Saleeb, Director and staff of Gon FHU
Mrs. Ghada Abdel-Kader Mohamed, Head Nurse, and staff of the Medical Records Department.

Dr. Saleh Gomaa, Director, and staff of Mohsen FHU
Medical Records Staff

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Dr. Saleh Gomaa, Director, and staff, Mohsen Family Health Unit
Dr. Emil Saleeb, Director and staff, Gon Family Health Unit
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Dr. Mahmoud El Damati, Director, Abu Qir General Hospital
Dr. Galaa' El Hanari, Medical Director, Gamal Abdel Nasser Hospital

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Dr. Amira Tahio
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Executive Summary

The Egyptian Ministry of Health and Population (MOHP) is implementing a long-term health sector reform program, a component of which is the move from inpatient care to outpatient care, a shift to primary health care and family medicine. A new service model of this program is currently being piloted in the Montazah district of the Alexandria governorate. The Family Health Fund (FHF) is the program's financing and contracting component, and the family health centers (FHC) and family health units (FHU) are the primary health care service delivery sites.

These health centers and units will offer a basic benefits package to residents of areas in the Montazah district of Alexandria who were eligible to participate in the pilot program. Those family households that were eligible to participate were placed on rosters and assigned to certain catchment areas in Montazah. The services to which the eligible roster members were entitled include being assigned to the same family practitioner and nurse through a random selection process, primary care services, and the services of medical specialists in certain specialties. Other services include an emergency room, laboratory, x-ray, social services, and a Medical Records Department.

The establishment of these service delivery sites began with the inaugural opening of the Seuf Family Health Center in May 1999. By the end of the year, there were five FHCs and FHUs, including Seuf and Abu Qir FHCs and Korshid, Mohsen and Gon FHUs.

The Medical Records Assessment conducted at these five FHF facilities from March through May 2000 was to determine the status of the departments. Special emphasis was placed on the medical record family file folder, patient care documentation, patient flow and patient registration, patient referral, the patient-based system, the appropriateness of the patient records, the Medical Records Department environment, and staff knowledge regarding their duties and responsibilities.

There are several areas identified in the assessment to which special attention should be focused. These areas should be considered problematic in that they have a negative impact on the operations and systems of the FHF facilities and should therefore be given immediate attention and resolution. These problematic areas include:

1. The family file and its entire content of forms, cards, and jackets were carefully reviewed as part of the assessment. The folder is an appropriate and functional concept that has become synonymous with the FHF facilities. However, as is identified in Section 7, “Patient Family File Folder,” of this report, some revision should be made to both the file folder and some of its contents so that its functionality can be maintained and the contents become a comprehensive health care record.

2. The present patient referral system is really five different sets of unofficial processes employed at each of the five different FHF facilities, since there are no official written guidelines or policies regarding the referral of patients. This problem was reviewed in detail from several perspectives after an assessment was completed. The review focused on the process of patient referral within each facility, the types of documentation involved in the process, and both the patient and document flow. The review looked at the both the internal and external review processes, conducting several visits to referral facilities, including Sharq El Medina, Abu Qir General, and Gamal Abdel Nasser hospitals. The patient referral form

was also reviewed and recommendations are suggested to make it a more effective document tool in the referral process. Please refer to Section 5, "Patient Referral System," and Section 9, "Patient Referral Form," of this report for details concerning the patient referral system.

3. There are no written FHF facility management policies and procedures or departmental guidelines developed for the facilities. Neither management nor staff has any reference material to refer to in the management or operations of the departments and facilities. This lack of written policies and procedures and guidelines has created several problem areas, such as patient referrals. Please refer to Section 14 for comments and recommendations concerning the lack of policies and procedures and guidelines. The reader will also find this issue commented in the assessment of each of the five FHF facilities in Section 4 of this report.

4. Space is another major problem that simply must be addressed as soon as possible. The longer the problem is allowed to continue, the more acute it will become. There are no easy solutions to the problem of shortage of file storage space in the Medical Records Department, but the current situation is further exacerbating the problem. This space problem is becoming an access problem, and is impacting on the quality of care being provided to the patients and customers and is creating a more difficult work environment for the staff. Please refer to Section 4, "Facility Assessment Review," and Section 14, "Recommendations," for more details concerning this problem.

These highlighted problematic areas require immediate attention, but it is respectfully recommended that all problematic areas receive attention and resolution.

1. Introduction

Michael A. Forte, consultant for the Partnerships for Health Reform (PHR) project, prepared this report for the Ministry of Health and Population (MOHP), government of Egypt, and the Family Health Fund (FHF). The report reflects the consultant's activities, findings, and recommendations under a scope of work (SOW) for the period of February 27, 2000 through May 31, 2000. The scope of work required an assessment of the medical records system of the FHF pilot family health center (FHC) and family health unit (FHU) facilities in the Montazah district, Alexandria governorate.

In carrying out the requirements of the SOW (see Annex A), the consultant made several trips to the five pilot facilities in Alexandria, including Seuf, Abu Qir, Korshid, Gon, and Mohsen. An assessment of the medical records systems at each of the facilities was performed, with significant emphasis made at Seuf and Abu Qir FHCs in part because these facilities were the first to be opened and because they will be among the first to be accredited.

During the period of assessment, informational visits were made to key members of the Alexandria health services community. These included meetings with Dr. Hassan Abou Zeid, Deputy Undersecretary for Health and Population, Alexandria directorate, and Dr. Hazim Helmy, Director, and senior staff of the Health Insurance Organization (HIO) regional district offices. Further, the consultant also met with Dr. Mahdeya Ali, director, and several staff members of the Technical Support Team (TST) based in Alexandria. During these visits, the consultant highlighted his strategy for completing the activities detailed in the SOW.

Additionally, several site visits were made to MOHP and HIO hospitals in the city of Alexandria during the period of assessment. These hospitals have been designated as referral facilities for services offered in the FHF benefits package.

2. Background

In 1997, the MOHP adapted a new strategy for comprehensive health system reform that would be implemented in phases over a 10-15 year period. The first phase of the reform strategy seeks to make available to all Egyptians access to better quality primary care and preventive services. A basic benefits package of priority services will be financed through a single insurance entity, the Family Health Fund, combining public funds and user co-payments, according to ability to pay. The U.S. Agency for International Development (USAID), the World Bank, and the European Union are all supporting this initiative with funding and technical assistance. PHR, a USAID-funded project under the Health Policy Support Project, in partnership with the MOHP and HIO, assists with policy design and implementation, and with a pilot project that tests how best to turn the new primary care strategy into reality.

The purpose of the pilot project is to test policy options and operational models for the three main components of a comprehensive, integrated primary care system. All three components are inter-related and necessary for a successful reform. The pilot project is developing, monitoring, and refining service delivery, financing, and regulation. Focus groups and in-depth interviews with providers, patients, and representatives of the government and private sectors supplement statistical analysis to give planners insight on what works, what doesn't, and why. Diverse communications activities raise the awareness and participation of all stakeholders in the reform, build consensus, and facilitate replication of the results.

The pilot health care service delivery sites were thus established in the Montazah district of Alexandria governorate, with the pilot sites to include facilities belonging to four provider sectors: the MOHP, the HIO, the private sector, and the non-governmental organizations sector.

The pilot project began with the establishment of its first facility, the Seuf Family Health Center, located in the Seuf area of Montazah district, Alexandria. The success of Seuf, and lessons learned from it, led to the opening of four more pilot facilities, including Abu Qir FHC (HIO), and the Gon, Korshid, and Mohsen FHUs. The purpose of these primary health units and centers is to provide primary health care services to specific catchment areas in Montazah. Currently, each of the five facilities has an assigned roster of families, averaging five members per family, totaling in excess of 24,300 families, or approximately 121,500 individuals (Table 1).

Table 1. Ratio of Roster Eligible Families per Facility

Facility	Date facility opened	# of clinics	# of FP's	Proposed # of families on roster when opened	Est. # of individuals	Current # of families on roster (May 2000)	Est. # of individuals (May 2000)
Seuf	5/99	4	8	3,600	18,000	5,000	25,000
Abu Qir	10/99	5	10	6,000	30,000	6,000	30,000
Korshid	10/99	3	5	3,600	18,000	4,300	21,500
Mohsen	10/99	3	6	3,600	18,000	4,800	24,000
Gon	10/99	3	6	3,600	18,000	4,200	21,000
Total		**18**	**35**	**20,400**	**102,000**	**24,300**	**121,500**

Notes: Korshid had vacancy for one family practitioner at time of assessment.
A ratio of 5x1individuals per family is used.
An increase of 3,900 roster eligible families (19,500 individuals) from October 1999 through May 23, 2000.

3. Process of Medical Records Systems Assessment

The medical records systems assessment was conducted from March through May 2000. Several trips were made to the family health facilities in Montazah, Alexandria, during that period. The assessment focused on the activities listed in the consultant's scope of work, a copy of which is Annex A. Several meetings and interviews were conducted with many department personnel and other staff at the facilities, including the director, head nurse, medical records, providers, nurses, social work, laboratory, x-ray, pharmacy, and dental clinic. The directors and senior staff graciously provided an initial walk through of the facilities, and subsequent unescorted visits were conducted for familiarization, observation, and to meet with various members of the staff.

Several visits were made to the Medical Records Department to conduct a review of medical records, patient encounter and referral forms, the patient-based system, activity logs; to monitor security, access, safety, environment; and, equally importantly, to meet with and discuss pertinent aspects of the SOW with the staff.

The consultant made special effort throughout the assessment process to remind several participants during meetings and interviews to keep in mind that the family health project was a pilot project. As such, it therefore presented opportunities for revising, enhancing, correcting, changing, and eliminating functions and developing policies during the learning process.

Several small informal focus group discussions with family practitioners, specialists, and nurses, as well as multi-specialty group participants were held to discuss specific SOW activities. Attending meetings of Abu Qir's Medical Records Committee meetings proved beneficial and informative, as this group was most proactive and supportive.

In monitoring the patient flow, several patients were followed or shadowed as they proceeded through the patient treatment system at the facilities: from the patient information stations, where the patient usually makes initial contact with facility representatives, to the patient registration station of the Medical Records Department, and on to the clinic rooms to be seen by physicians and nurses, then to receive their investigations, medications, future appointments, and discharge. All pertinent procedures, documents, and guidelines were reviewed with appropriate personnel along the treatment pathway to determine specifically what services were being offered the patient at that encounter, and how was it recorded. Equally importantly, a review of the link between the encounter form and the medical records was monitored.

A through review of the patient-based system (PBS) was conducted with the assistance of Dr. Mai Abu Wafia and Dr. Nagwa El Bistawi, management information system (MIS) consultants for the Technical Support Team as well as the responsible personnel in the various Medical Records Departments, clinic rooms, labs, and pharmacies. It should also be noted that several visits were made to the PHR staff at the National Information Center for Health and Population, MOHP to get additional orientation regarding the PBS.

Additionally, several visits were made to the primary referral facilities in the current FHF specialist/hospital referral network. The hospitals visited included Sharq El Medina and Abu Qir

General, both MOHP facilities, and Gamal Abdel Nasser, an HIO facility. During the visits to the hospitals, the consultant met with the directors and several senior staff, including Dr. Mohamed Hiaty, Director of Sharq El Medina Hospital, Dr. Gala'a El Hawari, Medical Director of Gamal Abdel Nasser Hospital, and Dr. Mahmoud El Damati, Director of Abu Qir General Hospital. The Family Health Facilities' referral system was discussed with the hospital directors and key staff, including medical records supervisors and senior physicians. The basis of the discussion was the current referral procedures and ways to improve the process. It should be noted that since Seuf FHC serves as a referral facility for Gon, Mohsen, and Korshid FHUs, several referral cases were 'tracked' through both the Seuf FHC and Abu Qir General hospital.

Should a revision of the referral system prove necessary, it was determined that additional support would be sought from Dr. Hassan Abou Zeid, Undersecretary for Health, Alexandria Health Directorate, and Dr. Hazim Helmy, Director of the HIO regional office.

The current FHF referral form was reviewed during these visits, and it was suggested that the form was limiting and some minor revision encouraged. The physician participants also suggested that much too frequently referral patients would present to the facility specialist with incomplete referral forms, thus leaving the specialist without the benefit of the patient history and reason for referral. The hospitals pointed out that in the absence of an apparent referral system, the process was proving to be cumbersome and frustrating for both the patient and the facilities involved.

Several options whereby the hospitals could be more supportive were explored and commitments to further support the pilot facilities patient transfer procedures were made. The general consensus among the network of referral hospitals was supportive and encouraging. Some of the suggestions discussed were subsequently implemented and have thus far proven effective.

Finally, in conducting the assessment, technical staff from TST accompanied the consultant whenever requested and whenever schedules permitted. This allowed TST exposure to identified issues and the level of effectiveness in the areas being assessed and also enabled the assessment process to be more transparent and effective.

4. Facility Assessment Review

This section reflects the results of the assessment review and findings at the five FHF facilities: Seuf, Abu Qir, Korshid, Mohsen, and Go. The process of assessment is described in the previous section. When reviewing the Medical Records Department, specific focus was given to certain areas, including:

- Medical Records Department structure and organization
- Policies, procedures, and staff guidelines
- Staffing pattern, training, duties, and responsibilities
- Patient flow
- Space allocation
- Equipment and supplies
- Safety and environment

The results and findings can only encapsulate the quality and quantity of effort required and produced routinely by all involved in the process of creation, review, storage and retention, retrieval of the patient medical records, and maintenance of the patient database.

4.1 Seuf Family Health Center

Seuf Family Health Center is located in the urban Seuf area of Montazah district, Alexandria. Seuf, which was opened in May 1999, holds the distinction of being the first family health center pilot facility. The facility began with a family unit roster of 3,600, approximately 18,000 individuals, but that roster has since expanded, and currently Seuf has a patient roster of 5,000 family units, or approximately 25,000 patients. The current average daily census is 130 patient visits.

The Seuf FHU maintains four clinics per shift, usually staffed by the same team of family practitioners (FP) and nurses. The first shift runs from 8:00 am through 2:00 pm and the second shift is from 2:00 pm to 8:00 pm. An emergency room shift operates on a 24-hour basis, providing emergency services with an emergency room physician and nurses. The facility also maintains a laboratory department and x-ray department, which operate on a 24-hour basis. Other essential functions, such as labor and delivery services, Medical Records Department, social services, a dental clinic and dental laboratory, family planning counseling, and an immunization unit, are also provided.

Additionally, Seuf, as a designated FHC, provides the services of specialists in internal medicine, OB/GYN, and pediatrics. The facility is currently preparing to offer same-day minor surgery services on a day-shift basis in the very near future.

The facility's director, Dr. Hanem Abbasy, gave much of her valuable time and support to the consultant and encouraged her staff to do likewise during several visits to Seuf. That support allowed for an in-depth assessment of the facility and it was greatly appreciated.

Interviews with Dr. Hanem and staff were wide-ranging within the consultant's scope of work. The main areas of focus included the medical records system, the family file folder, the patient encounter form, patient referral procedure, the patient-based system, data entry activities, patient care medical record forms, documentation, and monitoring and evaluation procedures. The assessment at Seuf also focused on the PBS as it relates to patient flow, documentation flow, and type and availability of patient data. The PBS section of this report reflects the findings, observations and appropriate recommendations to improve the utilization and enhancement of the system.

In conducting the assessment of the Medical Records Department at Seuf, a review of the activities at the patient information station and the patient registration station was conducted. The focus was to determine the actual procedures in application and to confirm compliance with any of the facility's policies, procedures, and patient and document flow charts. Actual patient registration activities were monitored with staff to ensure clarity and compliance with routine procedures.

Medical Records Department staff were interviewed to determine their position and duties and responsibility, as well as knowledge level and skills within their assigned job description. A thorough review of the medical record storage area was conducted, and subsequent questions were directed to Dr. Hanem and senior members of the department. The entire patient flow was reviewed. Time was spent observing the activities at each station or checkpoint in the system. A patient flow chart of the actual patient flow was subsequently developed and then retraced with staff to ensure accuracy.

Additionally, the MOHP/Quality Improvement (QI) Directorate accreditation tool for Medical Records Departments was tested at this facility. Several hours were applied to the completion of this activity, a more detailed finding of the outcome of the test can be found in the MOHP/QI section.

4.1.1 Medical Records Department

The Seuf FHC maintains a Medical Records Department that is located convenient to the main entrance of the facility and contiguous to the clinics. It is staffed by five medical records clerks, three of whom work on the first shift, which runs from 8:00 am through 2:00 pm, while two are assigned to the second shift, from 2:00 pm through 8:00 pm. The department is closed from 8:00 pm to 8:00 am, during which time patient file folders are not accessible. The department has several key functions and responsibilities, including the patient information station, patient registration, and storage, retrieval, and retention of the patient family file folders. Additionally, the Medical Records Department has a significant share of responsibility for maintaining the PBS wherein the patient clinical and administrative data base is retained. The department also provides courier services for prompt delivery and retrieval of patient family file folders to the clinics and other authorized areas as requested.

The following categories of departmental activities and functions were reviewed and provide an overall assessment of the department.

4.1.2 Policies, Procedures and Guidelines

The facility has a copy of the Medical Records Department Guidelines developed for the MOHP by the Cost Recovery Health Program (CRHP). Some of these guidelines are being utilized, and this may in part be reflected in the organization and layout of the department. Additionally, the facility has developed a patient flow chart that is routinely followed. However, FHF facility-specific policies and procedures should be developed and implemented at Seuf and all FHF facilities as soon as possible in order to provide management and staff with written guidelines for conducting the responsibilities of the facility.

Departmental policies, procedures, and guidelines specific to the operations of a FHC/FHU should be developed for the Medical Records Department. The CRHP guidelines are adequate during the pilot phase, but they are hospital- and polyclinic-based, and rather general concerning several FHF facility-specific activities.

4.1.3 Staff

The department is efficient and well organized. Staffing pattern is appropriate and the staff is well trained with demonstrated appropriate knowledge of their individual duties and responsibilities per job descriptions. Cross training among permanent staff has improved department effectiveness as determined by the degree of flexibility and efficiency with which staff rotates from assignment to another. The emphasis on customer service and quality improvement is both apparent and professional, and is reflected in the focus of the services provided.

4.1.4 Patient flow

Step 1: Begins at the patient information station, where the patient purchases a ticket entitling them to see the family practitioner. Clerk writes a special serial number on the ticket.

Step 2: Patient reports to the patient registration station. Registration clerk initiates an encounter form in the PBS, using the special serial number issued on the ticket as the encounter form number. Clerk directs patient to clinic room and retrieves family file folder.

Step 3: Courier delivers family file folder to clinic room with ticket attached.

Step 4: Nurse prepares patient for FP, takes vital signs and may initiate manual encounter form. The FP documents treatment in sections 2 and 3 of the encounter form and patient activity card, indicating the patient's diagnosis and the ICD code. Patient is discharged with instructions as appropriate or referred to internal or external specialist.

Step 5: Internal referral specialist receives family file folder, with encounter form and patient referral form. Patient is treated and discharged. Specialist initiates a new encounter form and completes the referral form.

Step 6: Patient family file folder containing the referral form and both encounter forms is returned to Medical Records Department by end of shift for data entry activity and refiled.

Step 7: Copies of referral form and both encounter forms batched in all clinics and forwarded to the Medical Records Department.

These steps are illustrated in Figure 1.

> Note: It is recommended that the Seuf FHC utilize the new patient flow chart shown on page 66 of this report.

4.1.5 Space

There are currently three areas where the key functions of the Medical Records Department are performed. These are: 1) Patient Information Station where patient pays fee, clinic appointments are made, and tickets issued to the patients, 2) Patient Registration Counter where patient is registered in the automated PBS and 3) Record storage rooms where the patient family file folders are stored. Staff also perform the data entry assignments on three computers, also are located in these file rooms.

The medical records file storage rooms are well maintained and clean, but very cramped and cluttered. Staff is doubling or stacking patient family file folders on the storage shelves due to lack of space. This doubling will eventually lead to misfiling and problems of file storage and retrievals. Further, the data entry stations are presently located in the file rooms which presents somewhat of an obstacle for staff conducting retrieval and re-filing of patient files in the area.

4.1.6 Equipment and Supplies

The department currently has four computers and one printer in its inventory. This is adequate for the current departmental responsibilities. However, one of the computers has been out of service for several weeks and requires servicing and is currently not being used for essential data entry activities. With the implementation of this report's recommendations, an additional printer will eventually be needed for providing statistical reports and other requested data.

The chairs provided for use at the workstations are not functional. These chairs are too large and non-ergonomic (they are really conference-type armchairs) and not suited for limited work space and computer workstations environment.

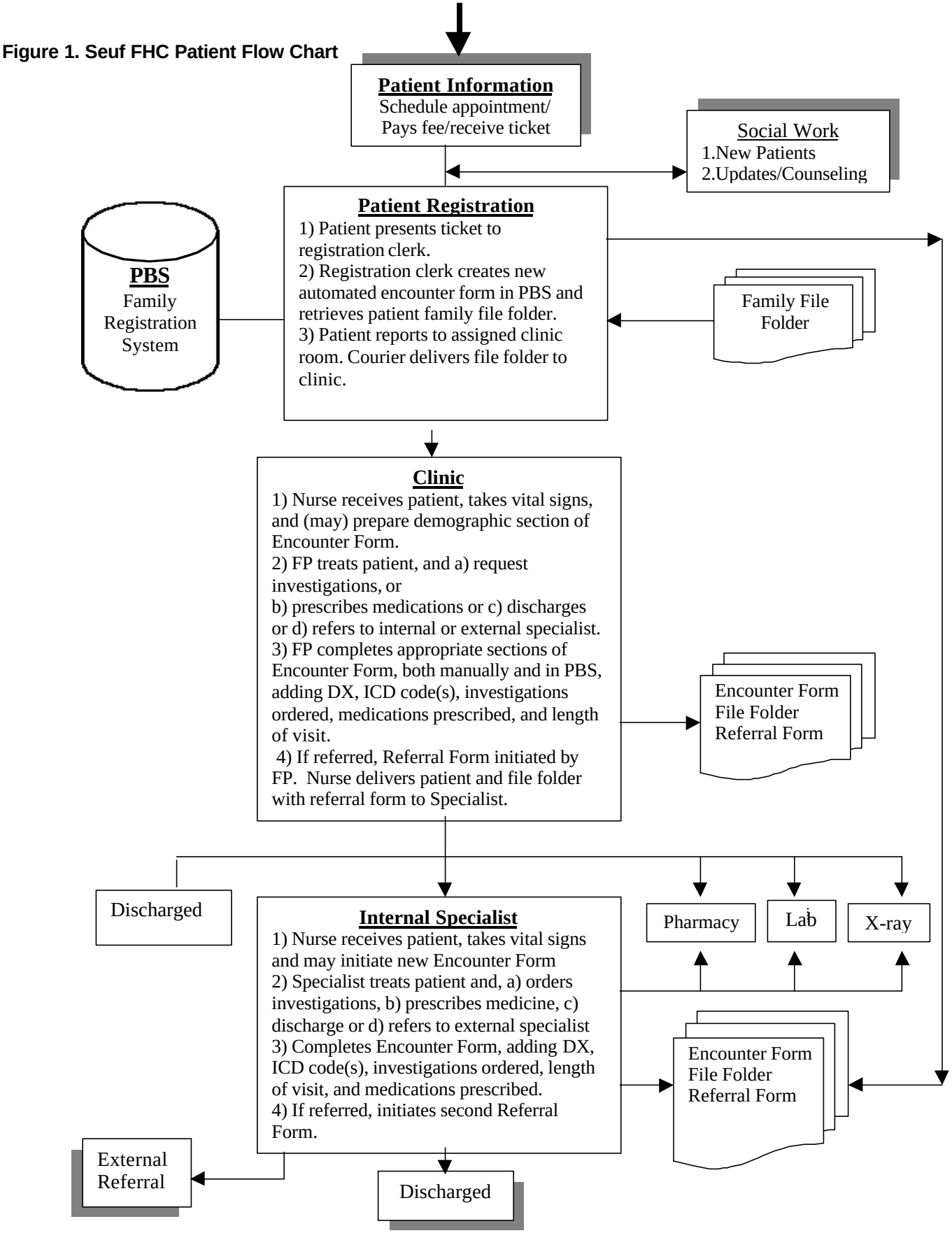
The department has routinely experienced chronic shortages of documents and family file folders essential for the registration and completeness of the patient medical files.

4.1.7 Safety and Environment

An important element of the assessment of the Medical Records Department was safety and environmental conditions wherein the staff is required to perform their duties. The lighting in the medical records work areas is appropriate, ventilation is appropriate, and security acceptable. Additional fire extinguishers are recommended in both storage areas due to the volume of paper and flammable material stored therein. It should be noted, however, that the facility has implemented a plan that should have an adequate number of appropriate fire extinguishers in the department before this report is published.

There is an exposed electrical circuit unit that is located in the small storage room on the wall above the chair of the data entry clerk. This is at least a potential hazard and at most a very dangerous one. A safety box should be placed over the unit to prevent any unfortunate accidents.

Figure 1. Seuf FHC Patient Flow Chart



4.2 Abu Qir Family Health Center

The Abu Qir FHC is located in the semi-urban Abu Qir area of Montazah district, Alexandria and is the only HIO facility participating in the pilot project. The facility has a roster of 6,000 families (approximately 30,000 individuals). It opened in September 1999, but actually started receiving patients in December 1999. The director, Dr. Mohamed El Lakkan was gracious, informative, and most supportive of the assessment activities at his facility.

Abu Qir maintains two shifts, the first shift from 8:00 am through 2:00 pm, and the second from 2:00 pm through 8:00 pm. The facility has five clinics, each usually staffed with the same family practitioner and a nurse per shift. Additionally, in accordance with the FHF benefits package, the center offers the services of three specialties: internal medicine, OB/GYN and pediatrics. The facility also has a laboratory, which operates day and evening shifts. There is no third shift, and none is expected because of the proximity of the new hospital, which will provide emergency room (ER) coverage on a 24-hour basis.

There is a Medical Records Department and social services. The center does not have an emergency department, dental, labor and delivery, or x-ray service. Patients needing these services are presently referred to other facilities and the HIO polyclinic located in the same complex. It is expected that with the anticipated summer opening of the HIO Abu Qir hospital, which is located on the same campus, patients in need of emergency, secondary care, or other services not currently being provided by the center will be referred to the new hospital.

The medical records systems assessment followed the same procedures outlined earlier in this report, and focused on several areas, including the key areas of the Medical Records Department, the patient and document flow, the family file folder, interviews with key members of the staff, review the quality of patient care documentation, patient referral procedures, and, equally importantly, review the link between the encounter form and the medical records.

In conducting the assessment of the Medical Records Department at Abu Qir, the functions at the patient registration windows were monitored to determine the actual procedures being used and to determine compliance with any of the facility's policies, procedures, and patient and document flow charts. Time was spent in the Medical Records Department, meeting with staff, reviewing the patient registration procedures, observing the actual registration of patients and the process therein.

Medical Records Department staff were interviewed to determine their position and areas of responsibility, and knowledge level and skills within their areas of responsibility. A thorough review of the medical records storage area was conducted, and questions were directed to Dr. Mohamed El Lakkan and Dr. Sonia Maurice, TST, and to members of the department. The entire patient flow was reviewed using the posted department flow chart as the discussion document. Time was also spent observing the activities at each station or checkpoint in the system. A patient flow chart of the actual patient flow was subsequently developed and then retraced to ensure accuracy.

4.2.1 Medical Records Department

The Medical Records Department of Abu Qir FHC is located on the ground floor at the entrance of the center, contiguous to the social work office and administration. The staff include five clerks and four technicians, five of whom are assigned to the first shift (8:00 am to 2:00 pm) and four

assigned to the second shift (2:00 pm to 8:00 pm). The department has several key responsibilities, including patient registration, the storage and retrieval of the patient family file folders and the maintenance of the patient appointment schedule. Additionally, the department provides courier service for prompt delivery and retrieval of patient family file folders to the clinics and other authorized areas as requested. The Medical Records Department currently maintains a manual patient registration system, due to the fact that the facility has not yet received its allocated computers and printers at the time this assessment was conducted. Abu Qir did receive two computers in early May, and staff have begun to build their patient database and are developing an appointment/scheduling program and patient referral database as well. They have already begun to produce patient activity data, all of which may be downloaded into the new MIS patient information system currently being developed for HIO and Abu Qir FHC by PHR consultant Sami Farag.

Abu Qir is the only facility that currently utilizes medical record personnel to review all active family file folders for completeness. This is in part because the facility recruited four recent medical record technicians, higher institute graduates with the skills to implement a process of "record review," suggested by the consultant. This record review has met with considerable success, resulting in measurable improvement in the quality and completeness of the contents and patient care documentation in the family file folder. Further, medical record staff now retrieve the lab investigation slips and place them in the medical records file folder as a permanent part of the file.

The facility has also implemented a successful patient appointment-scheduling program, whereby patients may schedule appointments at the facility during specific times, or by telephone. Currently, 30 percent of appointments are made by telephone and the remaining 70 percent of the appointments are completed at the appointment counter of the department. Further, patients can make either same-day or daily and future appointments. The staff developed logbooks to effectively monitor the entire appointment system, as well as implementing simple but effective procedures to avoid bottlenecks.

The following categories of departmental activity and functions provides and overall assessment of the department.

4.2.2 Policies, Procedures, and Guidelines

The facility has a copy of the Medical Records Department Guidelines developed for the MOHP by the CRHP. Some of these guidelines are being utilized, and this is in part reflected in the organization and layout of the department. Additionally, the facility has developed a patient flow chart that is routinely followed.

4.2.3 Staff

The department is well organized, effectively managed, and very efficient. The staffing pattern is appropriate and the staff is well trained and demonstrated appropriate knowledge of their individual duties and responsibilities per job descriptions. Cross-training among permanent staff has improved the effectiveness of the department as determined by the degree of flexibility and efficiency with which staff rotate from one assignment to another.

With the addition of four recent graduates of a medical records technical program from a higher institute, the department has become more innovative and the quality of the records and patient care documentation has improved measurably. Emphasis on customer service and quality improvement is

both apparent and professional, and is reflected in the focus of the services provided. Indeed, this strength is reflected throughout the FHF system among medical records staff.

4.2.4 Patient Flow

The facility utilizes an effective version of the FHC patient flow chart (see Figure 2). The patient appointment referral system has reduced patient waiting time and improved utilization of staff time, because it has reduced bottlenecks and made the system more proactive. It is recommended that the proposed patient flow chart in Section 13, "Recommendations," of this report be adapted to the extent possible.

4.2.5 Space

The entire Medical Records Department is located in an area extending from the main lobby entrance to the administrative offices. This area contains all of the functions of the department, including records storage, patient ticket counter, registration and appointment support activities. The facility recently added additional shelving that has resolved a shortage of filing space, but space remains limited.

A recommendation to reconfigure the patient information station through relocation of the patient information station and expansion of the patient registration and appointment areas will alleviate some of the problem. It will also provide separate queues for females if it becomes a serious issue during the prime time for patient registration.

4.2.6 Equipment and Supplies

The department currently has no computers with which to maintain its patient database. All patient registration is done manually. Several computers and printers are, however, designated for the facility and the department in the very near future.

Additionally, the desks currently in use in the department should be replaced by modular workstations and ergonomic wheeled/castor workstation chairs, which significantly improve space utilization in such work environments.

The department has routinely experienced chronic shortages of documents and family file folders essential for the registration and completeness of the patient medical files. Staff currently lacks protective uniformed smocks, standard equipment in such a work environment.

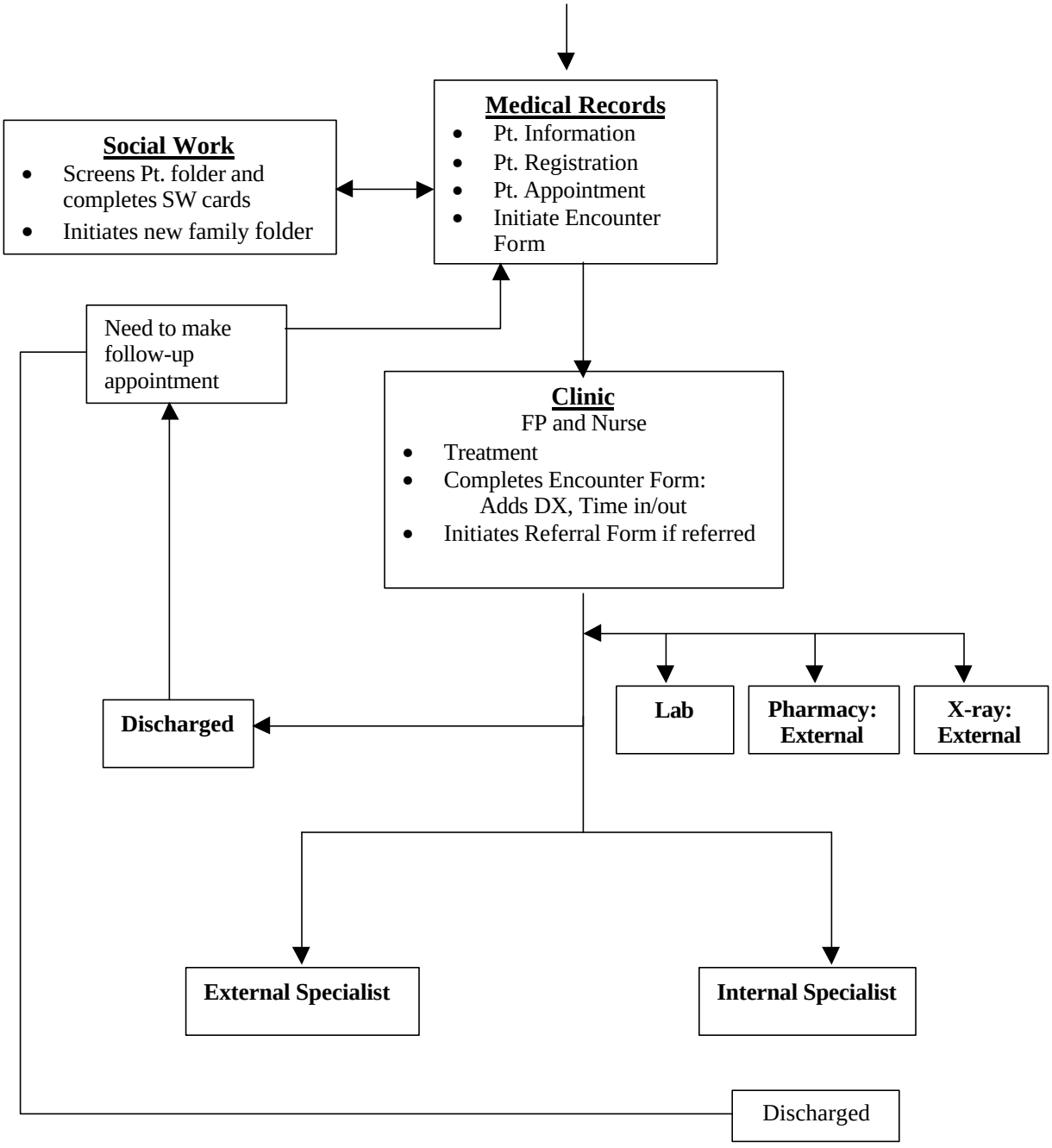
The Medical Records Department of Abu Qir can certainly be designated as a center of excellence within the facility, and, much like Seuf, can help set the standard for the health information management within the FHF.

4.2.7 Safety and Environment

Access, security, lighting, and ventilation are appropriate. Floors are clean and uncluttered. Fire extinguishers are located strategically throughout the department. From a security control

perspective, the department should consider replacing the present rear door with a two-part Dutch door to restrict access of unauthorized individuals.

Figure 2. Abu Qir FHC Patient Flow Chart, May 2000



4.3 Korshid Family Health Unit

The Korshid Family Health Unit is located in Korshid, a rural area of the Montazah district of Alexandria. Korshid was opened in September 1999, and began with a family roster of 3,600, or approximately 18,000 individuals. Currently the facility has a patient roster of 4,300 families, or approximately 21,500 individual roster members. The facility has a daily census of approximately 100 patient visits per day. Dr. Zakariah, the former director and Dr. Nagi Doweidar, current director, provided time, attention, and support to the assessment at their facility.

Korshid, like the other units, basically follows the FHF pilot operating model regarding organization, services provided, staffing pattern, and hours of operation. The facility maintains three clinics during two shifts, with the first shift from 8:00 am to 2:00 pm and the second shift from 2:00 pm to 8:00 pm. A third shift, staffed by a FP and a nurse, operates on an emergency coverage basis from 8:00 pm to 8:00 am, six days a week. Additionally, Korshid maintains a small emergency room, a laboratory, and a pharmacy. Other functions and services include a Medical Records Department, social services, family planning counseling, and an immunization unit.

The medical record systems assessment at Korshid utilized the same format employed at the other units. It focused on the consultant's scope of work, including the key functions of the Medical Records Department and its staff; the patient family file folder, patient and document flow, the PBS, and the quality of patient care documentation. Interviews were conducted with the director Dr. Nagi Mohamed Doweidar, Ekram Abary Mohamed, head nurse, Dr. Dalia Gabrial Yossef, Mr. Ala El din Ismail, and key members of the staff. Several activities, including patient referral procedures and a review of the link between the encounter form and the medical records, were reviewed. Additionally, the PHR/MOHP/QI Directorate accreditation tool for Medical Records Department was tested at this facility. Several hours over two visits were applied to this activity, but unfortunately, time did not permit its completion.

4.3.1 Medical Records Department

The Medical Records Department of the Korshid FHU is located in a small annex building in the right inner side courtyard of the compound, contiguous to the social work office and very close to the front gate booth where patients purchase their visit tickets and the clinics. The department is staffed with three personnel, with two assigned on the first shift and one on the second shift. These staff members serve as file clerks, data entry clerks, and couriers.

The department has several key responsibilities, including patient registration, the storage and retrieval of the patient family file folders, and the entire data entry activity for the facility, including updating both the lab and pharmacy systems in the encounter and referral forms sub-systems. This is partly because there is a rather talented staffer in the department who is very proficient with the computer systems and the PBS. He has even developed a prototype program for the ER.

The Medical Records Department currently maintains a PBS batched patient registration system, updating the system, both encounter and referral activities in batch mode during the shift. The FP currently initiates the encounter form during patient visit. Each clinic room, pharmacy, and lab have computers, but these are not as yet networked, nor do they have the PBS software program. Further, the staff claim to have had no training in the use of the hardware. The Medical Records Department staff also does data entry for patient referral forms, as well as maintaining a referral activity log.

The following categories of departmental activity and functions provides an overall assessment of the department.

4.3.2 Policies, Procedures, and Guidelines

The facility was provided with a copy of the Medical Records Department Guidelines developed for the MOHP by CRHP, as they do not have one.

4.3.3 Staff

The department is organized and very efficient. Staffing pattern is rather tight and leaves no room for flexibility. Lack of courier support has a negative effect on staff performance, as they are required to leave the department routinely to deliver and retrieve file folders. The staff is well trained and demonstrated appropriate knowledge of their individual duties and responsibilities and job descriptions. As stated earlier, all three of the clerks are cross-trained, which significantly enhances the quality and productivity of the department.

Emphasis on customer service and quality improvement is apparent in the level of professionalism and is reflected in the services provided. Indeed, this is strength of the medical records staff throughout the FHF system.

4.3.4 Patient-based System

The PBS is used to verify returning patients and register new patients from social workers. Encounter and referral sub-systems are updated in batch mode routinely during shift. Lab and pharmacy encounter activities also updated in medical records.

4.3.5 Patient Flow

The facility uses a revised version of the FHC patient flow (see Figure 3). It is recommended that the facility utilize the recommended patient flow chart in Section 13 of this report. The new flow chart incorporates all of the revisions and changes in patient and documentation flow.

4.3.6 Space

The department **has an acute space problem.** The Medical Records Department has shelf capacity for approximately 1,600 family file folders, with a current roster of 4,300 families. Because of the severe storage problem, staff is doubling the shelves with file folders and stacking hundreds of folders on the floor. Additionally, over 1,600 file folders are stacked on the floor in the social worker office next to the Medical Records Department. Such an acute situation has made file retrieval very difficult and time-consuming, and unless resolved in a reasonable time period, water, dust and dirt damage will exacerbate the situation. There is no patient registration window in the Medical Records Department at Korshid; consequently, patients routinely come into the rather limited office space seeking assistance.

4.3.7 Equipment and Supplies

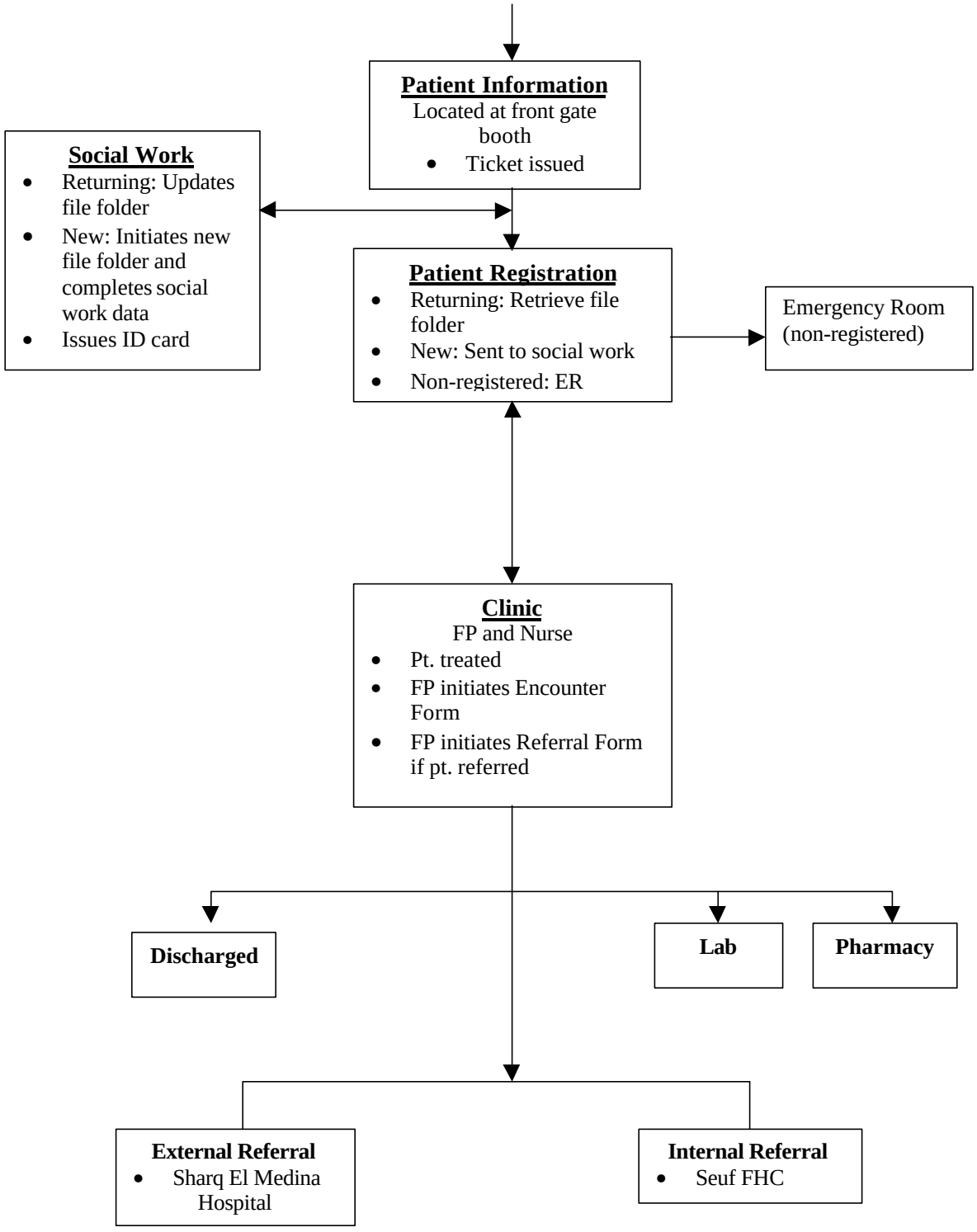
The department currently has an adequate inventory of two computers and one printer. The large desk and chairs currently in use in the department should be replaced by modular workstations and ergonomic wheeled/castor workstation chairs, which significantly improve space utilization in such work environments. The chairs are used as footstools and ladders and are unstable and unsafe. The department has routinely experienced chronic shortages of documents and family file folders essential for the registration and completeness of the patient medical files.

4.3.8 Safety and Environment

The acute record file storage problem has created an inappropriate working environment for staff of the Medical Records Department and the social workers. Over 1,700 records file folders are stacked on the floors of the two departments. Patients routinely wander into the very small cramped storage room seeking assistance, further compounding the cluttered conditions. Perhaps a registration window can be created for staff to attend to patients along with the replacement of the present door with a two-part Dutch door. This would at least offer some security and enhance confidentiality of the patient records.

Staff currently uses a rather unstable chair to retrieve record folders from higher shelves. A step stool should be procured for the department to avoid an accident and provide a safer working environment for staff. The lighting is inadequate and should be enhanced. Ventilation is marginal. Access to the department is appropriate. Fire extinguishers should be readily accessible in the department because of the volume of flammable and combustible paper products therein.

Figure 3. Korshid FHU, Patient Flow Chart, May 2000



4.4 Mohsen Family Health Unit

Mohsen Family Health Unit is located in the Mohsen area, a semi-urban community of the Montazah District of Alexandria. Mohsen, which had a family roster of 3,600 when opened in September 1999, now has a roster of 4,800, or approximately 24,000 individuals with an average daily census of 100 patients from the active roster.

Mohsen, like the other units, utilizes the FHF pilot operating model regarding organization, services provided, and staffing pattern and hours of operation. Dr. Saleh Gomaa, director, provided a tour of the facility. The facility maintains three clinics during two shifts, with the first shift from 8:00 am to 2:00 pm and a second shift from 2:00 pm to 8:00 pm. A third shift, staffed by one FP and a nurse, operates on an emergency basis from 8:00 pm to 8:00 am, six days a week. Additionally, Mohsen maintains a small emergency room, labor and delivery room, laboratory, pharmacy, and dental services. Other functions and services include a Medical Records Department, social work, family planning counseling, and an immunization unit for children.

The assessment at Mohsen FHU utilized the assessment format employed at the other units. It focused on the same areas of the consultant's scope of work, including the key functions of the Medical Records Department and its staff, the patient family file folder, patient and document flow, the PBS, the quality of patient care documentation. Informal interviews with the director, Dr. Saleh, the head nurse, and key members of the staff were conducted. Issues such as patient referral procedures and the completeness of the patient encounter form were discussed. A review of the link between the encounter form and the medical records was also explored.

The facility has assigned staff to a medical records committee, but they have not had any substantive meetings to date.

4.4.1 Medical Records Department

The Medical Records Department of Mohsen FHU is located in the main lobby of the unit. The patient information and patient registration functions are performed at the same counter area, and adjacent to the family file storage room, which contains approximately 1,500 files. Another 250 file folders are kept under the patient registration counter, and approximately 1,000 are on the floor in the social worker’s office. The department, which is staffed by five clerks, is located contiguous to the social work office and the clinics. The staff serves as file clerks, data entry clerks and occasionally couriers.

The department has several key responsibilities, including patient registration, the storage and retrieval of the patient family file folders, and the only PBS activity currently performed at the facility. PBS is done by batch-mode data entry for the patient encounter and referral forms, which is usually entered the same day, but completed within two shifts. The FP currently initiates the encounter form during patient visit. Each clinic room, pharmacy, and lab have computers, but they are not as yet networked, nor do they have the PBS software program.

The following categories of departmental activity and functions provides and overall assessment of the department.

4.4.2 Policies, Procedures

The facility does not have a copy of the Medical Records Department Guidelines developed for the MOHP by CRHP. It would be useful to provide the unit with what guidelines are currently available until FHF facility specific guidelines are developed for the Medical Records Department.

4.4.3 Staff

The department is organized and efficient with appropriate staffing pattern. The staff is well trained and demonstrated appropriate knowledge of their individual duties and responsibilities with all cross-trained, which significantly enhances the quality and productivity of the department.

Emphasis on customer service and quality improvement is apparent in the level of professionalism, and is reflected in the services provided. This is the strength of the medical records staff throughout the FHF system.

4.4.4 Patient-based System

The staff uses the PBS to verify returning patients and create new registration files for new patients. Patient encounter activity is performed in batch mode at the end of a shift when staff updates the encounter form sub-system.

4.4.5 Patient Flow

The facility utilizes a flow pattern similar to the FHC patient flow (See Figure 4). However, patients are allowed only one treatment activity per ticket. The ticket purchased by the patient at his initial registration only covers the FP consultation. If the patient needs additional services, such as investigations during the same episode, he is required to purchase another LE 1 ticket.

It is recommended that the facility adopt the recommended FHF patient flow chart" discussed in Section 13 of this report.

4.4.6 Space

The department has **a very serious acute storage space problem.** The medical record storage room has maximized its storage shelf capacity for approximately 1,500 family file folders, with a current roster of 4,800 families. Because of the severe storage problem, staff is doubling the shelves with file folders and stacking approximately 250 on the floor under the patient registration counter. Additionally, more than 1,200 file folders are stacked on the floor in the social worker office next to the Medical Records Department. Such an acute situation has made file retrieval and retention very difficult and time-consuming, and unless resolved in a reasonable time period, water, dust, and dirt damage will exacerbate the situation. The situation will inevitably lead to misfile and record unavailability that will impact on the quality of care.

There is a small registration area behind the file room and the patient appointment and registration counter. This area is currently unused, and the director does not anticipate using it. With

some minor renovation, this area can provide a storage capacity for about 1,200 plus file folders, and should be seriously considered as a possible solution to the storage problem.

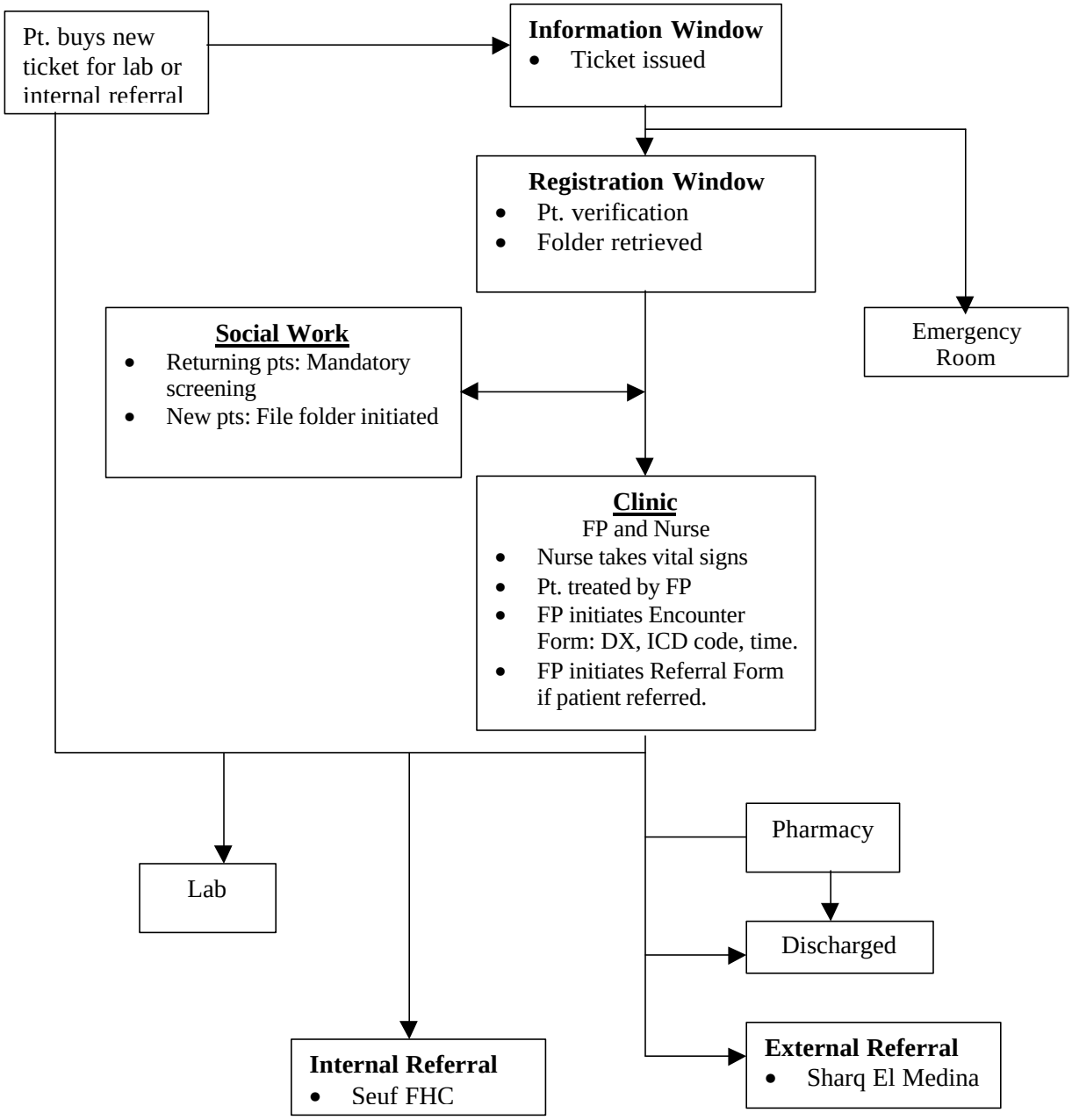
4.4.7 Equipment and Supplies

The department currently has an adequate inventory of two computers and one printer. The chairs currently in use in the patient registration area should be replaced by ergonomic wheeled/castor workstation chairs, which significantly improve space utilization in such work environments. The department has routinely experienced chronic shortages of documents and family file folders essential for the registration and completeness of the patient medical files.

4.4.8 Safety and Environment

The small record storage room is cramped and stifling whenever the door is closed. Staff consequently leaves the door open when retrieving or re-filing record file folders, but this can compromise security and patient confidentiality. Lighting in file room is adequate, but ventilation is poor. Lighting, ventilation, and access in the information and patient registration area is appropriate.

Figure 4. Mohsen FH Patient Flow Chart, May 2000



4.5 Gon Family Health Unit

Gon Family Health Unit is located in Gon, a rural area of the Montazah district of Alexandria. Gon, which was opened in September 1999, began with a roster of 3,600, but currently has a roster of 4,200, or approximately 21,000 individuals. The current average daily census is 110 patient visits. The director, Dr. Emil Saleeb took time out from his very busy schedule to meet with the consultant and to provide the necessary assessment information.

Gon, like the Mohsen and Korshid FHUs, utilizes the FHF pilot operating model regarding organization, providing the same basic package of services and utilizing similar staffing pattern and hours of operation. The facility currently maintains three clinics during the first shift, from 8:00 am through 2:00 pm, and a second shift, from 2:00 pm through 8:00 pm. A third shift, staffed by a FP and a nurse, provides emergency coverage from 8:00 pm to 8:00 am, six days a week. Additionally, Gon maintains a small emergency room, a laboratory, and a pharmacy. Additional functions and services include a Medical Records Department, social services, family planning counseling, and a vaccination unit for children and dental services.

The assessment at Gon utilized the process used at the other facilities, including the key functions of the Medical Records Department, staff duties and responsibilities, the patient family file folder, patient flow, the PBS, the quality of patient care documentation, and a review of recently completed encounter forms. Informal interviews were also conducted with the director, Dr. Emil, Ghada Abdel-Kader Mohamed, head nurse, and key members of the staff. Discussions were wide-ranging, albeit time-limited, due to the fact that the director also doubles as a FP and has full shift responsibility for a clinic. Discussion topics focused on patient referral procedures, the use and required elements for completion of the encounter form, and the link between the encounter form and the medical records.

4.5.1 Medical Records Department

The Medical Records Department at the Gon FHU is located in the main courtyard in one of the cluster of small single-level buildings that make up the unit. It is contiguous to patient information station and a short walking distance to the clinic rooms. The department is located in a small room, which serves as a patient registration station, file storage room data entry functions, and all other department support functions. The FHU has a current roster of 4,200 families, approximately 21,000 individuals. Gon, like Koshid and Mohsen FHUs, has an acute family file storage problem. File folders are stacked on every available space in the storage area, including the floor, chairs, desks, cabinets and doubled on the existing storage shelves.

Three medical record clerks staff the department; two are on the first shift and one is assigned to the second shift. There is courier support service, but staff also routinely delivers patient medical records to clinic rooms so as to alleviate the crush of patients at the registration window.

The department has several key responsibilities, including patient registration, the storage and retrieval of the patient family file folders, and the data entry functions associated with the maintenance of the PBS database, including batch entry for encounter forms and referral forms, which is usually entered the same day.

The FP currently initiates the encounter form during the patient visit. Although each clinic room, pharmacy, and lab has computers, they are not yet networked or have the PBS software program. Staff has suggested that basic training in the use of hardware and PBS program will be required before they can use equipment, which has been at the facilities for several months.

Gon FHU has a medical records committee that has met infrequently since its formation. This is a problem among all the units and centers. Due to the rather limited staff, and the level of effort required of staff during routine daily activities, scheduling committee activities are challenging.

The following categories of departmental activity and functions provides and overall assessment of the department.

4.5.2 Policies, Procedures and Guidelines:

The facility does not have a copy of the Medical Records Department Guidelines developed for the MOHP by the CRHP. Until FHF facility specific guidelines are developed for the Medical Records Department, it would be useful to provide the unit with what guidelines are currently available.

4.5.3 Staff

The department is organized and efficient with a very tight staffing pattern. The staff is well trained and demonstrated appropriate knowledge of their individual duties and responsibilities with all cross-trained, which significantly enhances the quality and production of the department. It was noted that Gon, like its sister units and centers, places high emphasis on customer service and quality improvement, albeit in difficult circumstances. Staff performance is professional, and this is reflected in the services provided. Indeed, this is strength throughout the FHF system.

4.5.4 Patient Flow

The facility utilizes a standard version of the FHC patient flow (see Figure 5). It is recommended that the facility adopt the use of the recommended FHF patient flow chart in Section 13.

4.5.5 Space

The department has **an acute storage space problem**. The medical record room has shelf capacity for approximately 2,500 family file folders, and a current roster of 4,200 families. Because of the severe storage problem, staff is doubling the shelves with file folders and stacking folders on the floor, filing cabinets, and chairs. This acute situation has made file retrieval and retention very difficult and time-consuming, and unless resolved in a reasonable time period, water, dust and dirt damage will exacerbate the situation. The situation will inevitably lead to misfile and record unavailability that will impact negatively on the quality and continuity of care.

4.5.6 Patient-based System

The staff uses the PBS to verify returning patients and create new registration files for new patients. Patient encounter activity is performed in batch mode by the end of a shift when staff updates the encounter form sub-system.

4.5.7 Equipment and Supplies

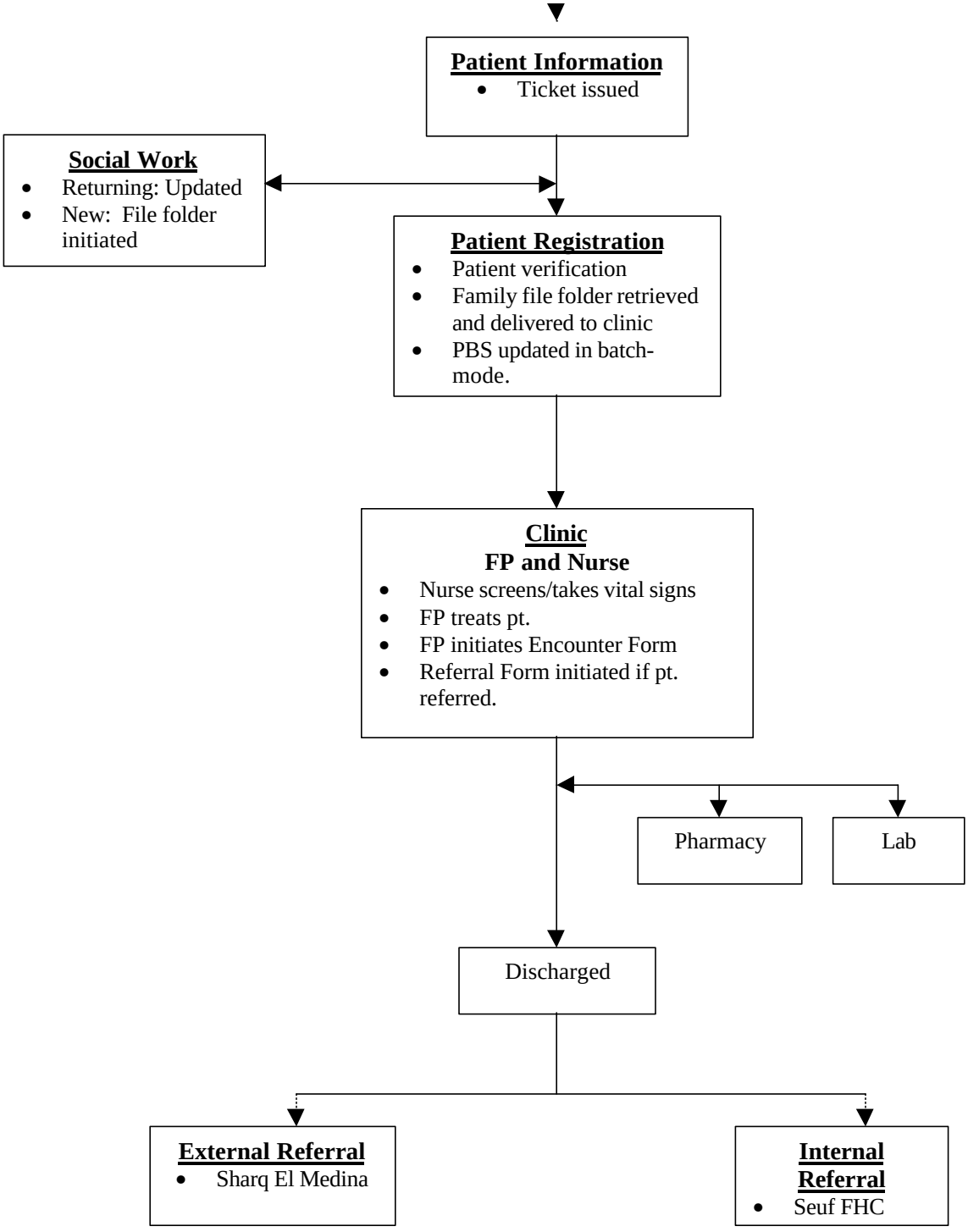
The department currently has an adequate inventory of two computers and two stylus color printers. The department's function does not require stylus printers. These should be replaced with standard laser jet printers and adequate supply of toner. There is a chronic problem in procuring printer toner, consequently, the printer is oftentimes idle.

The chairs currently in use in the patient registration area should be replaced by ergonomic wheeled/castor workstation chairs, which significantly improve space utilization in such limited work environments. The department has routinely experienced chronic shortages of documents and family file folders essential for the registration and completeness of the patient medical files.

4.5.8 Safety and Environment

Extremely cramped conditions in the records file storage area, which comprises 90 percent of this small area, limits access and safety. The lighting is appropriate and the ceiling fan enhances ventilation. Security is adequate. There is a need for more fire extinguishers in this environment of flammable and combustible material.

Figure 5. Gon FHU Patient Flow Chart, May 2000



5. Patient Referral System

5.1 Background

This section is intended to provide the family health facilities with clear and detailed procedures for the referral of patients to both internal and external specialists. This would include referrals to family health centers, and specialists at facilities within **the referral network**. The Family Health Project has five pilot facilities, including two designated family health centers and three family health units.

All of the family health facilities provide a basic package of services and are routinely staffed by the same family practitioner (FP) and nurse, and uniformly maintain the same hours of operation. The first shift runs from 8:00 am through 2:00 pm and the second shift from 2:00 pm through 8:00 pm. A FP and nurse are on duty from 8:00 pm to 8:00 am to provide emergency services for roster members. Included in this basic set of services are the Medical Records Department, Laboratory Department, X-ray Department, and a Pharmacy. A dentist is also located at the facility, but there is an additional fee for dental services, as they are not a part of the basic benefits package.

In addition to the services listed above, which are provided at all of the family facilities, there are an additional set of services that are provided at Seuf and Abu Qir, the two designated family health centers. Those services include three specialists who are on the staff to provide consultation in internal medicine, obstetrics/gynecology, and pediatrics. The basic benefits package also provides for the referral to other hospital-based specialties, including dermatology, ophthalmology, and ear, nose and throat (ENT).

5.2 Current Practice

Currently, there are no formal patient referral procedures, but rather individual FHC/FHU practices. While each pilot facility adheres to a general practice for the referral of patients, there are significant differences from one facility to another. These differences may adversely affect patient encounter data, such as producing incomplete patient encounter data, thereby skewing both patient encounter information and physician activity data.

For example, it is the practice of family practitioners at one FHU, when faced with an obvious patient referral situation, to prepare a *Patient Referral Form* for that patient, but the physician will **not** prepare a patient encounter form, unless the physician ordered laboratory or x-ray investigations for the patient. Consequently, numerous patients are being referred to external specialists without the benefit of a completed patient encounter form to detail the patient visit to the facility and encounter with the FP. Not all facilities understood that the patient encounter form is the treatment record that serves as a claims record of the physician with the Family Health Fund and is essentially a physician/patient tracking and linking mechanism for incentive payments.

Additionally, most of the pilot facilities are not fully utilizing the patient-based system with regard to the Patient Referral Sub-System, and none are capturing the activity in a current mode (i.e., as soon as possible after referral by the physicians). At least one facility enters the referral data in

batch mode during the first shift, thus providing current data at end of shift. Others, however, are not presently entering any data in the patient referral sub-system. (Please refer to section titled PBS). The PBS patient referral automated sub-system is designed to record patient referral activity whenever a family practitioner or a specialist refers a patient, both internally and externally, to a specialist. While the data entry of referral patients should be current, the facilities could enter data in batch mode by end of shift, thereby maintaining a shift current database. Failure to maintain a current patient referral database will deny a facility the opportunity to maintain accurate PBS database, and threaten the quality and accuracy of its PBS statistical reporting. Presently, neither the PBS nor the facilities' manual systems provide error-free data; therefore every opportunity to correct this situation should be considered. Until the recommended referral system is fully implemented, facilities may be required to maintain a manual system for recording all patient referrals.

Because of the complexity of the patient referral system, it can have significant potential impact on the operating costs of all the facilities within the patient referral network. It is strongly suggested that a cost analysis of the referral system be conducted to recommend cost recovery mechanisms to ensure the sustainability of the pilot project.

Table 2 summarizes the volume of referrals at all facilities for the first three months of 2000.

Table 2. Patient Referral Cases, January - March 2000

Facility	Total pt. visits	Total referrals	Internal referrals	External referrals & percent	Referral rate percent
Seuf	5,638	214	152 (71%)	62 (29%)	3.8
Abu Qir	14,022	1001	340 (40%)	661 (66%)	7.1
Korshid	2,346	32	N/A	32	1.4
Mohsen	4,320	48	N/A	48	1.1
Gon	2105	31	N/A	31	1.5
Total	28,431	1,326	492 (41.1%) (1.7% of total pt. visits)	834 (58.9%) (2.9%of total pt. visits)	4.6

Source: The respective facilities and comparison data from report of Dr. Nader Fayek, TST.
N/A – not applicable
Referral rate is total referrals/total patient visits

5.3 Recommendations

There are essentially two types of patient referral situations, as summarized in Table 3.

Table 3: Types of Patient Referrals

From/by	To	Specialties Available
Internal Referrals (within the FHF system)		
FHU Family Practitioner	FHC Specialist	OB/GYN, Pediatrics, Internal Medicine
FHC Family Practitioner		
External Referrals		
FHU Family Practitioner	Hospital-based specialist	Dermatology, Ophthalmology, ENT; higher level OB/GYN, Pediatrics, Internal Medicine
FHC Family Practitioner		
FHC Specialist		

The recommended procedures below are intended to allow practitioners to systematically refer patients both internally, that is, within and between FHF facilities, and externally, from an FHU or FHC to a hospital-based specialist. These recommendations are intended to serve as patient referral guidelines and be subsequently adapted into a more comprehensive set of patient referral policies and procedures for FHF facilities.

5.3.1 Internal Referral

1. FP refers patient to internal specialist, then

2. Completes patient encounter form, and

3. FP prepares appropriate parts of section 1, 2 and 3 of the patient referral form as required, and

4. Nurse directs patient to specialist, and returns patient medical record file folder to patient registration. Patient registration will initiate **a second encounter form** in the PBS and manually for the specialist. Courier will deliver patient file folder, the new encounter form, and the referral form to specialist and/or nurse. If the referral is within a FHC, the FP completes encounter form, initiates patient referral form, completing all required fields. FP gives patient both verbal and written referral instructions and two copies (original and first copy) and discharges patient.

5. Nurse returns complete medical record file, and copy of both encounter form and referral form is returned to Medical Records Department by end of shift. FP retains the third copy of encounter form and referral form for clinic activity files.

6. Specialist treats patient and completes sections 2, 3, and 4 of the second encounter form, discharges patient with follow-up visit scheduled, or

7. Discharges patient to be followed by referring clinic FP, or refer patient to external hospital-based specialist.

8. If patient was referred from an FHU, and FHC specialist is returning patient to FP, then specialist will complete section 4 of referral form, and white copy returned to FHU, Medical

Records Department by courier per approved courier guidelines. Medical Records Department will deliver file folder and feedback patient information to FP for review. FP will return File folder to Medical Records by end of shift.

9. Medical Records Department data entry clerk updates PBS patient referral database by entering all current pertinent patient data into patient database and refiles record.

At the time of this study procedural changes were being considered to restrict the use of the encounter form to family health unit services only and to use only the referral form for family health center activities. If this change is implemented, the referral system from FHUs to FHCs will be simplified and new written procedures will be prepared.

5.3.2 External Referral

1. Referring physician (FP or specialist) refers patient to external hospital-based specialist. Completes encounter form and initiates referral form, gives patient both verbal and written referral instructions and two copies (white and second copy) of referral form. Provider keeps third copy for clinic activity files.

2. Patient presents to referral hospital with two copies (white and second copy) of referral form and is registered per hospital's special registration procedures for FHF patients. (Example: Patients referred to SEM will report to window #10, be registered, pay fee, and report to specialist.)

3. Patient treated by external specialist is either admitted to hospital, schedules a follow-up visit with the specialist or returns to referring FHF provider. External specialist completes his section of referral form and forwards form (white and second copy) to the hospital Medical Records Department.

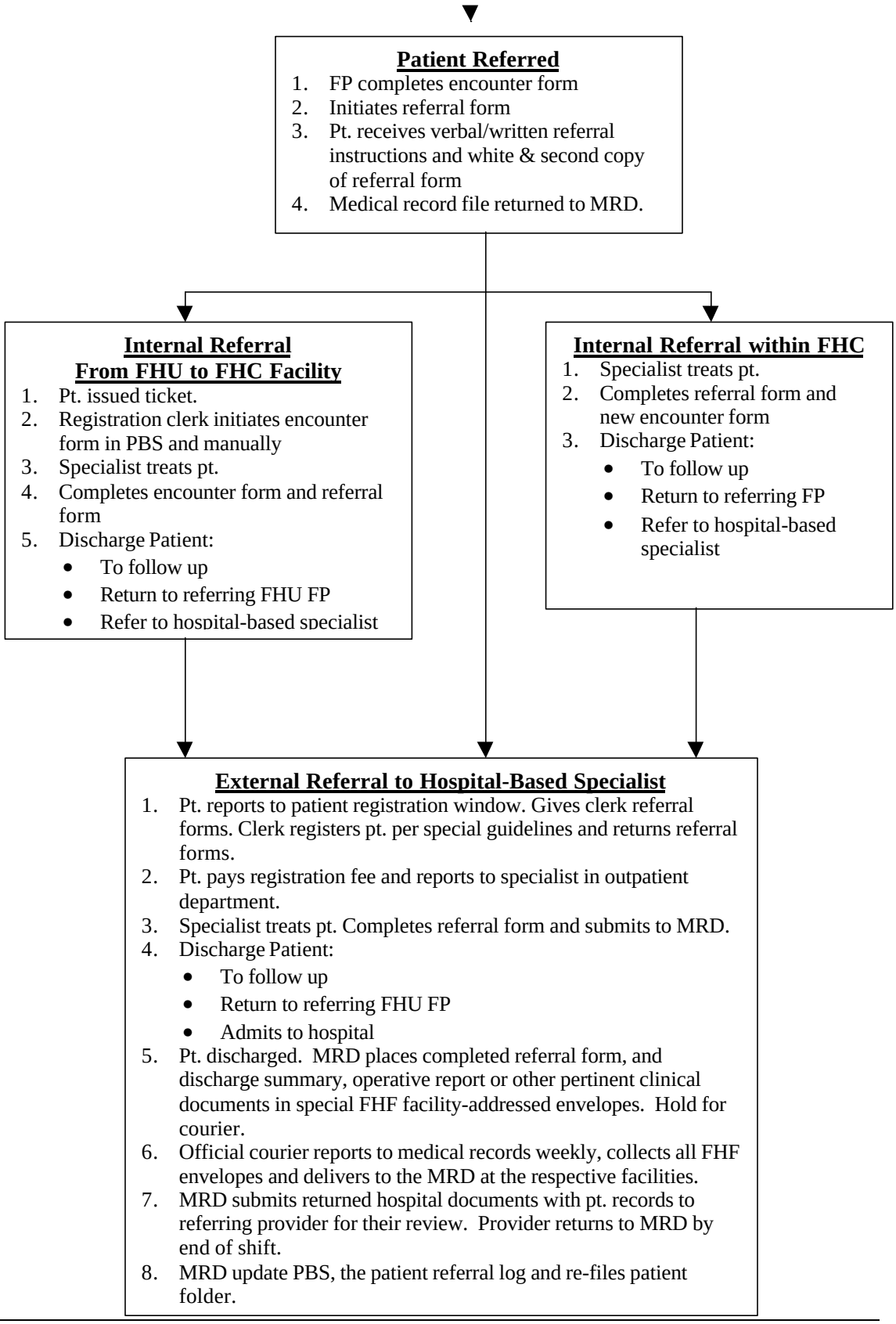
4. Hospital Medical Records Department retains the second copy of completed FHF referral form in their medical record file as a permanent part of patient medical records. Places all completed patient referral forms in specially addressed envelope for FHF facilities and holds for weekly pre-arranged pickup day/time by courier. Where agreed upon, the Medical Records Department will also attach a completed copy of the patient's discharge summary, operative report, and any other documents provided by the specialist to the completed FHF Patient Referral Form to be forwarded to the receiving FHF facility in a specially addressed envelope.

5. Courier will pick up and deliver all referral forms and discharge summary envelopes to the Medical Records Department of receiving FHF facilities.

6. FHF Medical Records Department will retrieve corresponding patient file folder, file the referral form and any other documentation sent by the hospital, and deliver the folder to the referring physician for his review and follow-up of treatment. Physician will return the file folder to the Medical Records Department by end of shift.

7. Medical Records Department data entry clerk updates PBS patient referral database and re-files folder.

Figure 6. Patient Referral Flow Chart, May 2000



6. Patient Family File Folder

6.1 Background

The patient family file folder is the compilation or grouping of a set of patient care documents, usually for an entire family or household, that is retained or stored in a cardboard file box container. This file box, commonly referred to as the "family file folder," contains several documents that have been designated as a permanent part of the patient's medical records. These documents represent a snapshot or picture of the family household from several perspectives. For instance, they reflect the socioeconomic and demographic data of the family unit. Children's ages and levels of educational achievement are noted in the file. The file folder contents also summarize the health history of the family unit, identifying family member's specific diseases and illnesses as well as a list of the names of all members of the household.

Additionally, the file folder contains a document file jacket/envelope for each family member whose name is identified on the family household listing. Recorded on these jackets is the individual patient's name, the family unit medical record file number and the patient's unique number (usually the family number followed by a dash and a digit(s) that represent the patient's hierarchical standing in the family). It also contains a history and physical card for a single individual and a patient activity card. This card usually reflects summary data of a particular patient treatment episode. Another key content of the file folder is a family identification card. This card identifies the patient's health unit by name, as well as the family name and medical record file number.

Though formally called the "family file folder", these documents are usually referred to as "the patient medical records," "the file folder," "the file box" or some combination. These family file folders or file boxes are stored and maintained in open shelf units in the Medical Records Department. In sequence, they contain: 1) A Family Identification Card. Contains name of principal family member, location of FHU/C and unique medical record number. 2) Social Work Card. 3) A file jacket/envelope for each individual family member that contains, sequentially, the following documents: 3.1) Patient history and physical (H/P) card, 3.2) Patient activity card, 3.3) Encounter forms sequentially dated, 3.4) Referral forms sequentially dated, 3.5) Diagnostic test results sequentially dated and grouped, 3.6) Other clinical documents, including medical records transferred from another facility, and 3.7) Other administrative documents, including special authorizations, copies of sick slips, and financial documents. These documents are further discussed below.

6.2 Findings

1. Family File Folder

> Description: Cardboard file box measuring approximately 28x20x2 cm. The folder has a lid-type cover that opens beyond 190 degrees, thus allowing for relative ease of access. The lid is held in place by a sturdy elastic band. The boxes were initially color-coded, i.e., specific colors for males and females, but that idea was later abandoned. Consequently, file folders of varying colors, including blue, red, orange, and green are now in use.

> Advantages: The file folder is a good idea that has certain obvious advantages. It contains all of the pertinent patient care documentation of the entire family for ready access by a caregiver. It is handy, convenient, and usually offers adequate security and patient confidentiality. Maintaining the entire family records in one file is convenient to a caregiver.

> Disadvantages: Conversely, the file folder is compact and limiting in storage content. It is neither flexible nor expandable, consequently, in can only retain a limited number of document jackets and other forms. Because the average family in the catchment area of Montazah consists of five individuals, the file folder will reach maximum capacity in a relatively short time period. Misfile or loss of the same file folder can prove detrimental to the continuity of care. This fortunately has not occurred with any frequency. Rather, the problem is more one of ready access as detailed in comments on storage space.

2. ID card:

> Excellent idea for a quick patient verification, and very handy due to power outages and PBS downtime.

3. Patient document jacket:

> The patient document jacket complements the file folder. It is, however, just a bit too small for the H/P card and the patient activity card. Routine attempts to access these care often result in tearing the seams of the jacket. Should the jacket be retained, it should be bigger, and possibly expandable.

4. Patient history and physical examination card:

> Patient H/P examination card is simply too limiting in scope. It is too general and does not capture sufficient pertinent information for all patients. There is not enough data recorded for children, women, pregnant women, and adults.

5. Patient activity card:

> The patient activity card is a valuable reference document if filled out completely. Reviews of the family file folders however, indicated that over 30 percent were incomplete. **This card is the only document in the file folder where the family practitioner is required to record the patient's complaint and the nurse to document the patient's vital signs.** It also allows the physician to verify crucial data in the absence of previous data (encounter form) or during power outages or PBS downtime. One very obvious recommendation for this activity card will be to add a patient disposition column as is described in the following paragraph.

> Patient disposition is not a required field in any file folder document (Exception: Patient referral) that a FP records at end of a patient's visit. Elementary but useful disposition categories may include: 1) No follow-up planned, 2) Follow-up planned, 3) Referred to other provider for consultation, 4) Returned to referring provider. These are but examples of the types of disposition categories that can be numerically coded for inclusion in patient care documentation. It gives the provider a quick snapshot and reference of status of patient since last visit to the care delivery site and may prove very useful when a patient is unable to clearly remember how he/she was discharged at his/her last visit.

Other contents of the file folder reflect a lack of standardized procedures, and the differences between HIO and MOHP patient documentation policies. Example: The HIO retains a copy of the patient lab and x-ray investigation results, a copy of which is therefore placed in the patient file folder. Conversely, the MOHP facility provides the patient with the written reports, and, in the case of the x-ray department, the film also. The practice is to rely on the treatment logs for references regarding the investigations. There is some past practice and legal argument for this practice. However, a relatively simple solution is to make a copy of all lab and x-ray results, either by using carbon paper or by copying the forms. The PBS is not regularly updated for all lab and x-ray results at all facilities and the data output is therefore not reliable. Whatever mechanism is finally used, a copy of all patient investigations should be placed in the patient file as a permanent part of those records.

There also exists some degree of confusion among the facilities due to the lack of a standard listing of contents for the other patient care documents, including the encounter form, investigation reports, and transfer or summary hospital documents. The patient referral form usually, however, ends up in the file folder but however, here again, that is not absolute.

The FHF facilities will have to develop an archival system for inactive medical records as the facilities services and rosters continue to expand and before it becomes a critical issue. This should be addressed in the FHF Policies and Procedures Manual when it is developed.

The recommendation section of this report offers alternatives to the current family file folder and its contents.

7. Medical Records File Folder Quality Review

During the assessment of the patient care documentation at the five family health facilities, a medical records file folder review was conducted. The purpose of the review was to verify the completeness, accuracy, and appropriateness of the patient care documentation at all of the facilities. A review tool was developed and used for this purpose, a copy of which is in Annex B. The patient file folder and its contents were the focus of the review, because the medical record is the sole comprehensive source wherein the care and treatment provided to a patient during his/her visit to a health care facility is documented and retained.

Over 150 medical records were randomly selected for complete review. The review focused on several administrative and clinical elements that contribute to the overall parameters of record quality, as discussed below.

7.1 Review Elements

Administrative Elements

Completeness of documentation, the accuracy and consistency of the patient demographic data, and the completeness of the file folders were checked. The consistency of patient family name, medical record number, dates and times, address, presence of mandatory data forms were among the items reviewed for the contents of the file folder, including:

- Patient identification card
- Social work cards
- File jackets/envelopes
- History/physical card
- Pt. activity card
- Administrative/treatment forms, such as the encounter form, referral form, and investigation results forms/slips

Clinical Elements

Clinical elements were reviewed to determine the completeness and appropriateness of the file from a clinical perspective. The review was to determine whether the physician, nurse, and other caregivers recorded key data as required, on the appropriate documentation of the file folder. For instance, did the family practitioner ascertain and record the patient's complaint and subsequent diagnosis (if determined) during treatment of patient? Did the nurse record the patient's vital signs as appropriate?

- H/P examination
- Patient activity card
  - Vital signs
  - Patient complaint
  - Diagnosis
- Encounter Form
  - Completeness
  - ICD Code
- Referral Form
  - Completeness
  - Diagnosis
  - ICD code
- Legibility of handwriting
- Use of abbreviations
- Lab completed per physician order
- X-ray completed per physician order
- Pharmacy - Medications dispensed per physician order.

7.2 Findings

The results of the review of the medical records file folders are summarized in Table 4.

The Medical Record Family File Folder (FFF) is a good concept that has significant value in the community-based primary care setting.

- Completeness
- Abbreviations
- Appropriateness
- Consent forms
- Documentation

While the family file folder is adequate, it is not a comprehensive document. Interviews with staff determined that there was an ongoing shortage of file folder supplies still being experienced at

all facilities. It was most acute at Abu Qir, where the lack of forms forced the administration to duplicate and recycle, which was quite a challenge, since the facility has no copier.

Further, the staff at several facilities were following well-intentioned but conflicting suggestions from "official" sources regarding several issues, including shortage of supplies, lack of space in file folder, storage of encounter and referral forms, and the assignment of data entry activities, notably, the patient referral form. The lack of file folder documents contributed significantly to the low score reflected in the completeness of FFF element. The intended use and objective of the encounter form was not clear to many of the staff, contributing in part to the missing data such as diagnosis and ICD codes. A lack of social work cards resulted in numerous patients being enrolled without the benefit on the required interview with the social worker at time of enrollment, creating a significant backlog of incomplete social work patient interviews at all of the facilities.

A lack of written procedures further contributed to the level and degree of confusion and frustration experienced by staff in the areas of patient care documentation and the required components of the patient file folder. While some facilities retained the encounter form in the file folder jacket, others kept them in folders in the Medical Records Department or stored in offices, not readily accessible for caregivers or review.

Many of the caregiver staff complained about a lack of training regarding the data elements required for completing the referral form and the encounter form. They felt that they were not adequately apprised of the use and value of data required on the forms, thereby resulting in incompleteness of forms, missing diagnosis and ICD codes. A lack of storage space contributed significantly to the retrieval time of some specific file folders, especially at Mohsen and Korshid, where the medical records file storage problem is particularly acute. At Mohsen, over 45 percent of the records are stacked on the floor in the social worker office. The general sentiment expressed by caregivers is that required documentation is redundant, time-consuming, inconclusive, and lacking. This feedback is addressed in the recommendation section of this report.

Table 4. Medical Records File Folder Review Results

Elements			Facilities		
	Seuf	**Abu Qir**	**Korshid**	**Mohsen**	**Gon**
Administrative Elements:					
Demographic Data	77%	78%	66%	63%	64%
Complete FFF	40%	52%	30%	82%	53%
Social Work Forms	90%	50%	30%	82%	53%
Clinical Elements:					
History & Physical	68%	45%	25%	63%	58%
Pt. Activity Card	90%	64%	75%	59%	70%
Vital Signs	83%	80%	70%	62%	60%
Pt. Complaint	60%	62%	50%	40%	47%
Diagnosis	90%	88%	80%	79%	80%
Encounter Form					
Completeness	90%	88%	85%	35%	68%
Diagnosis	90%	85%	85%	83%	81%
ICD Coded	40%	77%	45%	33%	40%
Referral Form					
Completeness	90%	80%	85%	75%	78%
Diagnosis	90%	87%	85%	75%	79%
ICD Coded	65%	75%	60%	30%	54%
Legibility	72%	64%	70%	75%	61%
Lab	90%	95%	90%	50%	90%
X-ray	90%	N/A	N/A	N/A	N/A
Pharmacy	100%	100%	90%	90%	90%

8. Patient Encounter Form

8.1 Background

The encounter form was developed to serve as an administrative multifunctional processing document for the family health fund. It provides several of the elements for the incentive payments of the FHF incentive payment system. In that capacity, the form is used to link FHF facilities and providers to the delivery of patient care and the resources utilized in the delivery of that care. It also monitors treatment time, prescription volume, and the quality and completeness of both administrative and clinical documents of the patient medical record.

8.2 Findings

The encounter form is well designed for its stated purpose. There are, however, some minor changes that could be made to the form that could enhance the information recorded to support the FHF incentive payment system. To simplify the review process and identification of possible additions or deletions, the form has been divided into six sections: 1) administrative, 2) diagnosis, 3) procedures, 4) pharmacy, 5) comments, and 6) signatures (see Annex D.)

8.2.1 Revising the Encounter Form

1. Administrative: Proposed changes to format: Revise all data element boxes to be very clear about what information is being requested and where it is to be recorded.

2. Diagnosis: Add "Patient Complaint" or "Chief Complaint" as new line item above physician diagnosis line items. No other changes proposed to content.

3. Procedures: Appropriate – No changes to content.

4. Pharmacy: Appropriate – No changes to content.

5. Comments: Add form completion guidelines to clearly delineate who is authorized to write in comments section, and what type of comments are suggested. Example:

    - **** FP**: "Pt. referred OB/GYN specialist." Or "Pt. discharged OK."*
    - **** Specialist:** "Referred to specialist at Shark El Medina." Or "Pt. discharged and referred back to FP."*
    - ***Pharmacist**: "This medication is out of stock."*

6. Signatures: Proposed addition: Add date line for signatories. Make the signing and dating of the document mandatory for physician and nurse. This is an administrative document that is used to order medical investigations, prescribe medications, and affect institutional incentive payments, and therefore could arguably be a legal document.

Linking the encounter form to the medical records file folder: To ensure the authenticity, validity and accuracy of the encounter form in the delivery of medical care at a FHF patient care delivery site, the following document flow is recommended. This **document flow links the encounter form to the medical record file folder and the patient-based system** in three important ways. 1) It **verifies** who, what, why, when and by whom the care was provided. 2) It **validates** the patient visit or episode through the encounter form and 3) It serves as a reference document to **verify** accuracy of data in the patient medical records and the PBS.

The encounter form should remain a three-part multi-colored form. The original should be white, and second and third copies different colors. Further, the copies should be clearly labeled or printed at the bottom center as follows: Original – **medical record department**, second copy – **patient treatment copy** and third copy – **physician copy**.

8.2.2 Encounter Form Document Flow

> Patient issued ticket with unique serial number at patient information station

> Registration clerks initiates encounter form manually and in the PBS, completing section 1 (administrative data). Uses unique ticket serial number as encounter form number.

> File clerk retrieves patient medical record folder, attaches encounter form and the ticket. Courier delivers to nurse at clinic room.

> Nurse takes and record patient's vital signs on encounter form and attaches encounter form to medical record folder.

> FP treats patient. Completes sections 2, 3 and 4 of encounter form.

> FP records as appropriate in comment section of encounter form.

> FP and nurse sign and date encounter form.

> FP retains physician copy of encounter form for their clinic activity files.

> Nurse places original encounter form in medical record file folder. Gives the patient treatment investigation copy to patient for investigations and pharmacy if ordered by FP.

> Provided FP ordered investigation(s) and instructed patient to return to clinic same day for results, nurse will place copy of investigation results in patient medical record folder.

> If the FP ordered medications and the pharmacist changed the prescription, the patient copy of encounter form must be revised to reflect this change. Medication changes should also be made on other copies of encounter form.

> Lab and/or x-ray technicians shall initial request on encounter form as appropriate, record investigation request in department daily activity log, and retain encounter form. PBS updated. If medications ordered, encounter form returned to patient.

- Pharmacy dispenses medication(s), initials and retains encounter form in monthly batches. Updates PBS.

- Medical record folder returned to Medical Records Department by end of shift.

- Medical Records Department updates PBS and refiles medical record folder.

(Note: Original encounter form is either retained in file folder or stored in special file cabinet for a period of four months before being destroyed or provided to FHF administrative offices per incentive payment guidelines.)

The encounter form should be given a FHF nomenclature number for ready identification and for reprinting.

Example:

- **Title:** Encounter Form - Medical Visit Form (in Arabic): Location: top center of form. **Nomenclature Number**: FHF-EF002.5/99. Location: bottom right of form.

- Each time the form is revised, the date should be made current, e.g., FHF-EF002.5/99 will be changed. The **new number** will be FHF-EF002.6/00.

Usually when a form is revised and printed, the old version in stock is used up or recalled and its use discontinued before the new form is published or activated. Cost-effectiveness and the significance of the changes in the revised form often dictate whether a form will be recalled or simply be used up.

It should also be noted that a newly revised FHF patient flow chart, which is in Section 13 of this report, has been developed to support the proposed encounter form patient and document flow.

9. Patient Referral Form

9.1 Background

The patient referral form was created to support the FHF facility patient referral process both internally and externally. The form is an effective clinical document for recording basic essential medical information from one physician or healthcare facility to another and a permanent part of the patient's medical records. The referral form provides the patient demographic data, history, diagnosis, condition, treatment, and summary of investigations and reason for referral. This form meets the basic requirements necessary for appropriate documentation in effecting the transfer of a patient from one health care facility or physician to another.

9.2 Findings

The referral form is a three-part multi-colored form. Colors are usually white, pink, and green. However, other color combinations have been printed. The form is in its second generation of revision, but both versions are currently in use at the FHF facilities. The form is divided into four distinct sections, including 1) Administrative, 2) Initial Findings/Diagnosis, 3) Referred to, and 4) Report from Specialist/Hospital to FP.

1. Administrative: The form is appropriately titled with location reference at top left. The entire section is in English. It should be revised into the Arabic language, much like the encounter form, because English not very practical: Not all of the FHF staff is proficient in reading and writing English. Further, registration clerks at referral hospitals must read these forms, and again the question of English language proficiency should be taken into account. Additionally, the native language is Arabic, and to the extent that these types of forms can be in Arabic, they should. The unofficial rule for these situations is that administrative data should be in Arabic, while clinical data, such as patient diagnosis, vital signs, and other data to be recorded by physicians, may be in English. Fortunately, there is enough space in this section for the recommended revision.

Proposed Revision:

> Revise administrative section from English into Arabic.

2. Initial Findings/Diagnosis: This section is cluttered, as has been stated during interviews with providers. However when a physician refers a patient to a specialist, that referring physician has a responsibility to provide appropriate, current, and useful information about the patient. This is really the minimum information needed, with the possible exception of ophthalmology, and should not be avoided. Additionally, there is no place for recording the patient's complaint (chief complaint). This is enabling and essential information for the receiving specialist.

Proposed Revisions:

> Correct misspelling in section, from “Sever” to “Severe.”

> Add line item for “Patient Complaint” or “Chief Complaint.”

> The ICD code box can be relocated to bottom of section under “Emergency” and subtitle “Clinical Examination” can be relocated to top section center to improve space alignment.

3. Referred To: This section is appropriate.

Proposed Revision:

> Add a “date” line next to physician signature.

4. Report from Specialist/Hospital to FP:

Proposed Revision:

> Add a “Patient Disposition” line item next to the “Others” line item by reducing that line item by 40 percent-50 percent. Currently the disposition of patient is not recorded, except when a patient is referred. There are, however, other dispositions that serve as valuable patient follow-up and tracking information for the referring provider. Patient disposition feedback is limited under the best of circumstances; therefore, by simplifying the process, physicians may be more encouraged to provide needed patient information. Disposition codes with numeric value could be developed.

Example:
a) No follow-up planned – code 1
b) Follow-up planned – code 2
c) Return to the current provider at specific date – code 3
d) Referred to other specialist for consultation – code 4
e) Return to referring provider – code 5

This list of examples may be expanded to include other patient disposition categories as necessary. The concept should first be tested until there is a comfort level and acceptance by staff.

> In the sub-title line item “Recommendations,” change to 1) “Recommended Treatment” and eliminate “Line of treatment.” 2) Change “Main Drug” to “Medications/Main Drug(s)” and add additional line item for medication and 3) Eliminate line item titled “Medications.” These changes will reduce the confusion regarding the correct place to record prescribed medications and will provide just a little more needed and invaluable space on the form.

10. Patient Based System

10.1 Background

The patient-based system is the FHF management information system that was developed and is maintained by PHR's MIS team assigned to the MOHP, National Information Center for Health and Population. It stores the database of roster patients properly registered in the system via the patient registration and encounter applications.

Several types of patient-related data are or should be routinely captured in the system. These data include patient administrative, demographic or identification data, social and family history; history and physical examination, patient encounter data, referral data, and resource utilization and consumption data. These data are the basis for the volume, patient activity, diagnosis, ancillary usage, and physician and unit performance data-related reporting parameters expected of the system.

The assessment of the medical records systems at the FHF facilities included a review of the PBS from the following perspectives, including, 1) patient registration applications, 2) data entry and data storage, 3) reporting capabilities, and 4) systems reliability from a medical records and health information systems perspective. To conduct this element of the scope of work, several very informative visits were made with Les Fishbein, MIS advisor, and the PHR staff at NICHP. All were most patient and helpful in providing a systems walk-through, albeit in a lab environment, and answering systems-related questions on several occasions.

The PBS was also reviewed at Korshid, Mohsen, and Gon; however, special emphasis was placed at the Seuf FHC, where Dr. Mai Abu Wafia, a TST MIS trainer and analyst, provided the technical and functional support of the system in this working environment. The review focused on those segments of the PBS actually used by the staff in the departments of medical records, lab, x-ray and pharmacy, and by the clinic FPs, as they all have some data entry functions and responsibilities and therefore impact on the patient data and information retrieved from the system.

The PBS is made up of several sub-systems, including: 1) registration, 2) encounter, 3) family folder, 4) reporting system, and 5) system setup.

10.2 Findings

1. Registration:

> The registration system stores the standard administrative and demographic patient identification data. The data is entered by the medical record registration clerk at time of roster patient visit, and should be updated at subsequent visits. The registration data is the basic element of the patient database.

2. Encounter:

> This sub-system is a replica of the encounter form and the referral form. It is a series of screens that are initiated when a patient is registered in the administrative section. Patient identification data is automatically updated as this system is linked to the registration database. While the patient number is the universal medical record number, the encounter form number is a serial number recorded on the ticket at the time patient pays the registration fee. This encounter number will subsequently be written also on the patient encounter form. The diagnosis section is completed by the FP at conclusion of the patient's visit. Both diagnosis and ICD code should be entered. FP enters time. Lab and x-ray will complete data entry for requests for investigations. Pharmacy will complete its section of the encounter screen. The encounter system also has a screen for patient referral. This screen is a replica of the referral form, and is linked to the registration database; therefore patient administrative and demographic data are transferred automatically. The required data entry fields are diagnosis, lab, x-ray, physician time, and pharmacy. Currently this screen is not being completed at Seuf, but is at Korshid. (Mohsen and Gon could not be properly verified during site visits.)

> With the implementation of the recommended patient referral procedures, a second encounter form will be initiated both manually and in the PBS by the Medical Records Department for the specialist utilizing the same encounter number. This cannot currently be done, but PHR's NICHP systems engineers responsible for the PBS have been alerted to the potential problem and have stated that the creation of a "duplicate" is a very simple process and will not create any system integrity issues.

3. Family Folder:

> This sub-system is a series of five screens. Data includes physical examination, social work data, medical history, and deaths. It should be noted that this information might be available in the family file folder if recorded by social worker and FP during initial or subsequent patient visits. This data is not currently being entered in the PBS by data entry clerks. If the FHF is to develop and maintain a comprehensive health information management system, then this application should be utilized, at least in a test mode, to identify potential problem areas and test data quality and integrity. To do this, however, will require additional data entry staff at each facility, and more training for staff.

4. Reporting System:

> Produces time sequenced from-to reports from the database on demand. Type of reports include diagnostic-based reports, physician activity reports, patient activity reports, and unit summary reports and ancillary usage reports.

5. System Set-up:

> System set-up was not reviewed in-depth, since it did not directly impact on the SOW.

6. Other Findings:

During interviews and meetings with end users of the PBS, concerns were expressed regarding the availability of data. Those concerns included the quality of standard reports and the types of reports that should be available. Further, there were comments about the inability to get data in a timely fashion, the inability to get data for programs and assignments, and numerous other comments regarding the integrity of the PBS-generated reports of patient-related data. This lack of reliability in

the system has led to data being manually collected for daily, weekly, and monthly reporting at the facilities. Many clients, at all levels of the user spectrum, expressed some level of concern or dissatisfaction with the PBS. Perhaps an audit system for data verification can be developed and piloted at Seuf and Korshid, so as to improve and maintain the validity of data entry functions. However, the PBS is not really a relational data base system; consequently, data can be skewed or inappropriate. Since it would appear that the current system is an expansion or add-on driven model, the problems referred to earlier are common place.

Other concerns included the lengthy waiting period for the repair of hardware equipment. Equipment has been reportedly down for over four months, awaiting parts, and the availability of necessary printer supplies seems problematic.

It would appear that many of the end users and customers of the PBS are not fully cognizant of the entire system or its potential capabilities. Nor does it appear that the entire systems applications been fully tested in an actual work environment for a reasonable period of time, so as to determine its functionally. It would be valuable if all applications be fully utilized at Seuf FHC and perhaps Korshid FHU for a reasonable period of time, perhaps three months, in order to verify linkage between applications, resolve problems, and perform “minor” systems enhancements and adjustments. This is particularly appropriate during the ongoing development stages of the FHF service delivery sites during the pilot phase.

11. MOHP/QI Directorate Record Review

11.1 Background

The MOHP/QI directorate is currently working in association with PHR's Quality Improvement team to develop a system for accrediting health care facilities in Egypt. One component of the accreditation guidelines is the accreditation survey instrument. The consultant was asked to field-test this accreditation survey instrument during the course of the medical records assessment.

The survey instrument is very detailed and required appropriate time on the part of the surveyor and interviewee(s) in order to be accurately completed. The consultant devoted several hours testing the instrument at the Seuf FHC and the Korshid FHU. While a significant portion of the survey was completed, the accuracy of a few areas could not be appropriately determined in the time allowed, and was therefore not completed.

11.2 The Accreditation Survey Instrument

The medical record review component field-tested by the consultant had several sections (A, B, D and E) as described below.

11.2.1 Section A: Patient Rights

This section requires the surveyor to review:

- Policies and procedures regarding patient rights at the facility
- A copy of consent form
- Records of selected patients
- Patient satisfaction survey questionnaire(s) used by facility
- Results and reports of patient satisfaction survey
- Selected written complaints from patient(s) and/or staff compiled by facility
- Training plan and list of staff trained in interpersonal communications

11.2.2 Section B: Patient Care – General Clinical Areas

This section requires the surveyor to:

- Ask the Medical Records Department to provide the medical records of all patients seen in the last three months
- Put all the files in a stack and follow random sampling methodology
- Select at least 30 records for review
- Review the selected medical records and conduct assessment

11.2.3 Section D: Management of Information

This section requires the surveyor to:

- Review a random sample of 30 medical records for completeness and accuracy
- Ask for the facility policies and procedures on medical records

11.2.4 Section E: Quality Improvement Program – Interview Questions

This section requires the surveyor to review:

- QI polices and procedures manual
- Job description for the QI coordinator
- A QI plan
- Minutes of QI team/committee meetings during last three months
- Report(s) on specific process improvement activities

11.3 Findings

The QI Directorate's Record Review survey was tested at the Seuf FHC and the Korshid FHU by the consultant during the Medical Records Systems Assessment. The selection of Seuf as one of the test sites was obvious because Seuf had been in operation for over 10 months, making it the longest operational FHF pilot facility.

For this instrument to be more efficient, it is recommended to have an accompanying manual or set of guidelines to assist the surveyor to better understand the standards and apply the measures more objectively. The scoring system seems more liberal than it needs to be and consequently leaves too much room for subjective scoring, which can influence the results. Further, the instrument seems to be more hospital focused and may not be equally applicable in a primary health care delivery site.

Results of this informal survey and field testing of the survey instrument and consultant's comments were provided to the PHR QI specialist, Randa El Turk. Copies of the survey may be obtained from the QI specialist.

12. Focus Group Study Results

PHR and the TSO staff conducted focus group studies in January and February in Alexandria to solicit feedback from providers and patients of the Family Health Fund. Participants included patients, family practitioners, nurses, and the directors from all of the pilot facilities. (For additional information, please see PHR forthcoming technical report on the focus group meetings, by Nena Terrell.)

Several of the comments and concerns shared by the participants were echoed during the informal interviews and meetings held during this assessment. Some of the areas of concern included redundancy of patient care documentation and the inadequacy of the current forms included in the family file folder for efficient documentation by physicians. Concerns were also expressed regarding the poor use of patient treatment time performing data entry activities by physicians as well as the inadequacy of the history and physical examination forms in meeting the needs of extensive examinations for female, child, and emergency patients. Consolidation of required data, improvement of the referral system, and shortening of the patient waiting time was among the suggestions offered. The group also expressed concern regarding the lack of storage space for patient medical records and the issues of computerization.

These comments are still viewed with significant concern by staff at all of the pilot facilities, and there is a heightened expectation and frustration about the resolution of these issues. Several of the recommendations in this report are directed towards immediate and gradual resolution of some of the critical issues affecting the appropriate delivery of health care at FHF pilot facilities that were expressed in the focus groups.

13. Recommendations

A Medical Records Department is now established at the five FHF facilities, yet there is much work to be done. Areas of opportunities for improvement have been identified throughout this report. The present system is a typical pilot system. Ideas are tried, learning curves are created, and lessons learned all blend into developing a successful program. Much has been accomplished in a very short time, and the system will continue to develop. These recommendations are respectfully submitted to support that process.

This section provides key recommendations for the general enhancement of the medical records system and the health information management of the FHF pilot facilities and future facilities as the pilot moves into its next phase. The recommendations are broad in scope, encompassing the elements of the scope of work. To simplify the process, this section highlights recommendations that appear in this report. It is suggested that the reader refer to the findings in the respective section for a thorough discussion.

13.1 FHF Facilities

13.1.1 Space

Space, or lack of space, is an acute problem that should be addressed as soon as possible. Each of the five facilities has a space problem, but it is most acute at Korshid, Mohsen, and Gon.

> **Seuf:** To alleviate space constraints, which will be a serious problem over the next year (or sooner if the patient roster is expanded), the facility should consider removing the workstation in the center aisle of the main storage room. This should be replaced with four or six double-sided seven-tier freestanding shelving units, similar to those presently being used. These additional shelves can hold approximately 800-plus file folders. A suitable location should then be secured for the two workstations for medical record data entry activity.

> **Mohsen, Korshid, and Gon:** One short-term cost-effective solution for record storage problem is to install temporary removable record storage shelves along the walls in the offices of all of the social workers. While this is not optimal, it gets the file folders off the floors and will greatly improve access, storage, retention, and retrieval. A long-term solution may well be adding an appropriate-size building to the complex and reshuffling functions.

> With regard to Mohsen, as discussed it the assessment findings, there is an additional solution to the space dilemma. There is a second unused registration counter right behind the current registration area. This counter is not currently being used and the director does not expect to use it. If it is renovated to become a file storage room, it will be able to retain about 1,200 medical record files, which would significantly alleviate the space problem. The area would need a wall and door constructed, along with a maximum number of medical records storage shelves on all of the walls. This is minor renovation, and cost

should not be an inhibitor. Actually, it should be much like the present file storage room. Serious consideration should be placed on implementing this recommendation as soon as possible.

> **Abu Qir FHC**: Abu Qir should approve the suggested realignment: expand patient registration window to eliminate congestion and build information/cashier booth in corner lobby area.

> **Space Allocation for Medical Records Department Files Storage**: Before assigning space to the Medical Records Department, FHF facilities space allocation and assignment planning teams should take into account the number of the initial roster of families multiplied by the number of individuals per family. (The ratio used in Montazah District is 5x1: = 5 individuals per family) Further, every effort should be made to project the growth and expansion of the family roster for the next two years in order to determine the total active roster size in two years. (Note: It is recommended that all medical records remain active for a period of two years, after which they may be removed from the active file storage area and archived).

When projecting roster growth, the ratio of eligible unregistered families should be taken into account. (Data from current FHF facilities may prove adequate for this projection). An unregistered family is one that was initially assigned to a roster but never registered at that facility. (For example, 3,800 roster-eligible families are initially assigned to a FHF facility in May 1999. Over the next year, 90 percent of those who were eligible did register at that facility. Ten percent did not register at the facility; therefore the inactive roster number is 10 percent or 380 families). So, to determine the initial family file storage space requirements, subtract the number of (anticipated) inactive roster eligible families from the active roster plus the projected number of new families to be added to the roster eligible over the next two years.

To determine actual roster:
Initial Roster = 3,800 or A
Inactive Roster = 380 or -A
Active Roster = 3,420 or B
Roster projection = 1,200 or C. B+ C =D
Total = 5,000 or D.

This final number of 5,000 will be a close approximation of the number of family file folders the department will have to maintain in two years. Space should therefore be assigned for this amount of family file folders during planning and development of facility.

> To determine the number of storage shelve units needed for these family file folders, multiply the number of file folders per storage shelf multiplied by number storage unit (8 shelves) multiplied by number of family file folders:

Shelf size: 40" x 12" (recommended)
Shelf capacity: 27 expandable file folders
8-tier storage shelf unit capacity: 216 file folders

Formula to determine storage unit shelf capacity requirements:

Number of file folders: 5,000 or A

Divided by number of file folders per storage shelf unit: 216 or B = 23.1 storage shelf units required
Multiplied by number of shelves: C = 625 shelves required.

13.1.2 Polices and Procedure Guidelines

Develop written policy and procedure guidelines for FHF Medical Records Departments. Administration, management and staff must have written policies and procedures by which they efficiently operate the facilities. Meanwhile, CRHP medical records guidelines will offer some guidelines, is available in Arabic, and should be provided to all facilities.

13.1.3 Staff

Staffing pattern was appropriate with original roster. However, rosters are expanding, and staff will be in need of support. Currently courier support is the most pressing. Re-evaluation after one year of operation is appropriate.

- Korshid and Gon FHU's staff shortages should be remedied as soon as possible.

- Any significant additional responsibility placed on any of the departments, such as increase in data entry activities or record completion may require refresher training for current data entry clerks and possible increase in staff. This may be avoided by careful assignment of shift assignments.

13.1.4 Patient Flow

All facilities should utilize the proposed new FHF patient flow chart (Figure 7) to accommodate the revised flow of the patient encounter form flow and the referral form.

13.1.5 Equipment and Supplies

- All facilities have experienced chronic shortages of file folders and forms, which has caused a backlog in completing patient H/P examinations, as well as social work questionnaires. It might be more effective to plan for maintaining a three-month inventory during pilot's growth and expansion.

- All facilities are currently using inappropriate furniture in the Medical Records Department. Overly large conference-type chairs and desks are inappropriate for use in a cluttered work area. Staff should be provided with modular computer workstations and sturdy ergonomic wheeled chairs.

- Facilities should ensure that adequate number and type of fire extinguishers be strategically placed in the department, with emphasis on storage areas, where flammable and combustible materials is stored. To date, Abu Qir and Seuf have taken steps to comply with these recommendations.

- Copiers are needed in each department, and certainly at each facility. Staff have to take material for copying to the corner store routinely if a document needs to be copied.

- Gon: Replace two stylus printers assigned to the Medical Records Department with standard laser printers. Color printers are not necessary, and the toner is expensive and out of inventory.

- All facilities require step stools and/or four-step ladders for staff to access records on higher shelves. Using chairs as ladders is inappropriate and could cause an accident.

- Develop and implement a "Medical Record File Folder Sign-Out Log" to maintain a tracking system of files requested and/or delivered to authorized facility personnel. This is currently being tested at Abu Qir FHC with notable success. In addition to providing an excellent tracking tool, it improves accountability and records management. While this may prove difficult at the FHUs, it should be able to be implemented at Seuf.

- Electrical Generators: All of the facilities experience power outages, almost routinely. During these outages, all electrical systems and equipment are inoperable. Needless to say, this can have a significant negative impact on activities, and where centers are providing emergency, labor and delivery, or minor surgery, patient care could be adversely effected. To the extent financially feasible, selected FHF facilities should be provided with electrical back-up generators.

13.2 Patient Referral

All facilities should adopt and implement the proposed patient referral procedures and flow chart in this report. They have been reviewed and have the support of key stakeholders interested in the patient referral process. The courier component can begin by the middle of June. The mail pouch envelopes have been procured, staff have been oriented to the system, and trial runs made with couriers, FHF facilities and the hospitals in the referral network.

- Develop facility-specific "written instructions" for patient referral. Instructions to patients should be in Arabic and include a standardized general summary statement of reason for referral to a specialist. The form should list the names of all referral facilities in the referral network in a checklist format, with the name of facility, telephone number, and address.

- Develop Physician Referral Summary Sheet. To be used instead of back of referral form, which is never used. Summary is optional for referral provider. Used to communicate in Arabic or English "conversationally" between physicians about a difficult or referred case. Not a permanent part of patient medical record. Content: FHF facility header, date, phone number, and provider name on plain paper.

- As referenced in Section 5, it is strongly recommended that a cost analysis of the referral system and its impact on facility operating costs be conducted.

13.3 Medical Record File Folder Review

The quality of the medical record and patient care documentation, completeness of the record and the legibility of handwriting, were the focus of the review. As the table clearly shows, some ongoing effort has to be made in some areas, including documenting patient complaint and diagnosis and coding. This may improve with the implementation of the FHF incentive program, a good mechanism that places significant emphasis on completion of the medical record. Additionally, the

activities of the medical records committee and the QI committee, during their routine review of patient records, will focus attention on the areas needing improvement. Abu Qir FHC has already made significant progress in the areas of incomplete records by reviewing returning records at end of shift to identify incomplete records. These records are routinely returned to the provider for appropriate completion. It is effective and has improved the quality of the medical record.

> Medical Records Committee conduct routine review (biweekly) of randomly selected records to determine quality and completeness, returning those that are incomplete to the provider for appropriate completion.

> Facilities should recruit medical record technicians or train qualified senior staff to assist the medical records committee in conducting elementary record review.

13.4 Family File Folder Content

13.4.1 Medical Record File Folder

There are basically three options regarding the family file folder: 1) retain as is, 2) modify, or 3) replace with a different file container. Thoughts regarding these options:

1. The current folder is too small and cannot hold the documents required. It will become much more crowded with the approval and use of the comprehensive H/P exams. The current folders need not be replaced but rather phased out if option 2 is selected.

2. Reconstruct present folder to be expandable. Accordion-style construction has value and would maintain similar style and familiarity of folder although cost may be prohibitive. This revised folder should be engineered to accommodate 2.5 times current volume and be both wider and longer by 2.5cm. Suggested dimensions: 36x 22.5x 4.5cm. (These are approximations only.) This folder is the consultant's recommendation as a part of a more comprehensive primary care medical record.

3. Replace with traditional file folder of very sturdy construction and material. These could be phased in at existing facilities and be the primary medical record folder at new facilities. If this option is selected, storage shelves would have to be reconfigured for existing facilities and new facilities storage shelves be appropriately configured to accommodate this different style of folder. There would be a need to develop an adhesive labeling sites on the new folders for family name and medical record number.

Recommended content of the file folder: 1) identification card, 2) social work cards, 3) new patient file jackets with all individual patient documents, 4) revised H/P examination forms, 5) referral forms (with appropriate feedback data, 6) revised patient activity card, 7) copy of all investigation reports.

Note: Other file jackets or envelopes were reviewed but considered unsuitable for a primary care delivery site with roster sizes currently being experienced at the FHUs and FHCs.

13.4.2 Patient Activity Card

> Retain with minor revision. Add a "patient disposition" column.

13.4.3 Social Work Social Family History Cards

> Retain as is.

13.4.4 History and Physical Examination Form

It is strongly recommended that both the history and physical examination forms be revised to make them more comprehensive. A comprehensive physical examination should be given to every new patient at his or her first visit to the clinic. The physical examination provides baseline data to assist the provider in determining a diagnosis and to monitor changes in the patient's health over time. A comprehensive examination should include all body systems. The detail of the examination may depend on such factors as age, sex, and other findings. Pregnant women and children should have specific screenings and tests. Perhaps, time and circumstance permitting, these physicals may be scheduled to allow the FP time needed to conduct a complete physical. The medical history—the data the provider uses to establish a provisional diagnosis and on which to base treatment—must be just as comprehensive.

13.5 Encounter Form

> It is strongly recommended that the initiation of all encounter forms, both manually and automated, be the responsibility of the Medical Records Department registration personnel. This procedure will place the entire responsibility for patient registration within the Medical Records Department, where the staff are trained to perform patient registration activities, and where they are currently registering patients in the PBS, entering the same data elements. Further, removing the responsibility for completing the demographic section of the encounter form frees the physician to spend more quality time with their patients, and less on redundant paperwork. The practitioner will therefore be responsible for completing the clinical component of the encounter form, including the diagnosis, procedures, and prescribing of medications.

> Minor revisions to improve form as described in Section 8.

> Orientation sessions in the use of new form should be given on mandatory basis to providers, nurses, patient registration staff, and administration. There must be a very clear understanding as to the reason and purpose of the form.

13.6 Referral Form

> Change patient registration and identification fields from English to Arabic.

> Add patient disposition category.

> Minor revisions to improve format and data flow.

> All staff who utilizes or processes this form should attend a mandatory training session in form completion. Training should be very vanilla, with facilitators' clearly explaining the reason and purpose of the form. With a better understanding as to the purpose of the form, staff may better complete them.

> As referenced in Section 9, it is strongly recommended that a cost analysis of the referral system and its impact on facility operating costs be conducted. Please refer to Section 9 for additional details.

13.7 PBS

> Create a second encounter form in PBS for patients referred by specialists.

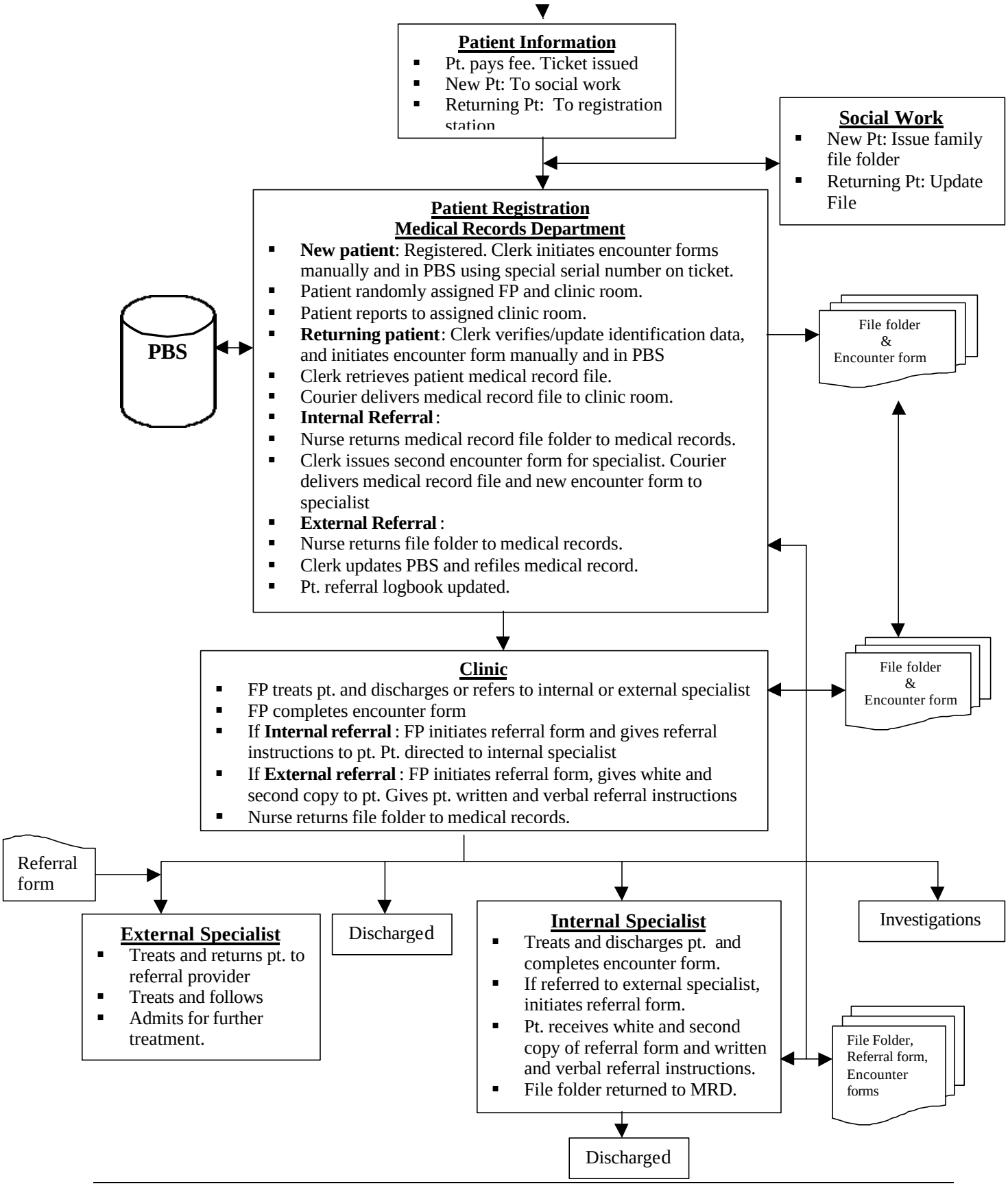
> Develop basic log for “Patient Referral Activity” in PBS. Elements to include: 1) administrative data, 2) patient identifiers, 3) provider and FHF identifiers, 4) receiving hospital and 5) feedback received – date. This would provide support to the new referral procedures and serve as an auditing and tracking tool.

> Evaluate entire PBS system in work environment. This could include inventory system. Suggest Seuf FHC as test site since it is fully staffed and an active work environment with great leadership. Conducting such a vigorous and intense systems test over a reasonable period of time might serve to allay concerns over the quality of the PBS products and confirm the integrity of the system.

> The concerns over PBS data availability are real. Whether these concerns are founded or not, there is a general observation that data is either unavailable or its integrity suspect. Perhaps a more QI approach to customer service might serve to resolve some of the concerns while the recommended systems workout would eliminate the technical component. Consumers should, to the extent possible, seek information from the PBS. This will reduce unnecessary manual collection and computation of data, but not eliminate it. This would of course require that data entry at the facilities be consistent and thorough, which requires refresher training and reorientation by users to PBS.

> Install, link and test NICHP “Pharmacy Inventory System” at Seuf FHC. This inventory system will add greater flexibility. May be able to seek official approval for inventory data after appropriate period of data validation reporting.

Figure 7. Recommended FHF Patient Flow Chart, May 2000



14. Conclusions

The medical records systems assessment was thorough, wide-ranging, and focused. However, there may have been areas overlooked or not reflected in this report. That was unintentional. The scope of work required looking at many areas of the system that might not usually be associated with medical records.

The assessment took a critical look at the family file folder and its contents. Numerous group sessions and individual meetings with providers, nurses, pharmacists, technicians, medical records staff, directors, and committees provided a broad cross section of views, thoughts, and ideas about how to revise, change, delete, and implement. Critical and thoughtful ideas were proposed and shared by committed groups and individuals. Many completed their homework assignments given by the consultant. Committees prepared drafts of proposed forms revision, and Medical Records Departments implemented proposals and suggestions. Several ideas, some not mentioned in this report, were put in place successfully.

One comment, consistent throughout, was paradoxical. Many suggested that the patient care documentation responsibilities of the providers and the care-giving team as a whole are redundant and that too much effort had to be devoted to writing, and not enough to the patient. Yet the same group argued that the medical record file was not comprehensive, because the history and physical examination was too limiting, general, and not useful for certain patient categories, including pregnant women, children, and adults in general.

Some of the recommendations will resolve these concerns. Physicians will spend more time with their patients and less time with paperwork. Registration clerks will initiate the encounter forms and perform data entry functions.

Annex A: Scope of Work

The medical record consultant will conduct an assessment of the medical records system of specifically identified family health center facilities in Alexandria that are a part of the PHR pilot family health centers. The focus of the study will be to ensure that the medical records systems in place are sufficient to meet the needs of the Family Health Fund. The consultant's final report will be to the MOHP's High Committee for Health Insurance. Consultant will give special attention to the facility family file records, storage and retrieval, use of the records, provider documentation, and recommendations for improvement of the medical records system as appropriate.

Specific Activities:

- Conduct medical record systems assessments at pilot facilities in Alexandria
- Review the procedures for storage, filing, and retrieval of patient records
- Review procedures to determine level of security and confidentiality of patient records and patient care information
- Monitor/review patient registration procedures
- Review medical records with specific emphasis on the facility family file folder
- Ensure that medical records systems are consistent with accreditation requirements as defined by the MOHP Quality Directorate
- Conduct detailed review of active medical records with specific focus on the following:
  - The appropriateness of current clinical forms
  - Patient care documentation by providers, nurses, other members of health care team
  - Completeness of records
  - Legibility of provider/nurse handwriting
  - Adequacy of medical records
  - Appropriate use of medical records
  - Use of abbreviations
  - Patient referral documentation
  - Appropriate patient consent documentation
- Review the impact of the facility family file folder and its impact on availability (access), and continuity of care
- Ensure that procedures for referrals are in place so that controls on referral documents and feedback mechanisms are in place the meet Family Health Fund reporting requirements

- Conduct interviews with providers to determine their use of the medical records and the benefits regarding continuity of care

- Visit other predetermined facilities utilizing similar family facility records format to determine their experience and what modifications, if any, have been contemplated or implemented

- Identify patient care documentation requirements of the referring facilities to verify compliance

- Determine appropriateness of staff training and knowledge medical records system (if required)

- Identify availability of necessary equipment and supplies (if required)

- Conduct meetings with providers to determine their views regarding current medical records system and their specific needs regarding medical records system in the appropriate delivery of medical services

- Conduct meetings with other identified key groups and individuals to ascertain their concerns, views, and suggestions/recommendations regarding patient care documentation at the family health centers

- Review encounter form for link with medical records and recommend improvements in content and procedures

- Recommend FHF medical records standards for any service delivery sites that contract with the FHF

- Provide support in other predetermined areas within scope of experience, skills, knowledge, and ability as requested

Final Report:

A written final report will be submitted as per SOW that will include results of the assessments of the facility medical records systems, observations with special emphasis regarding the viability family file folder, and the consultant's recommendations for systems enhancement to attain stated objectives.

The comments/views and recommendations of identified stakeholders will be included as a critical element of final report.

Level of Effort:

Total contract not to exceed 50 days. The medical record consultant will accomplish scope of work per prescribed performance schedule:

- 3-4 days per week

- Work period: 10-12 weeks

- Submit verbal/written summary activity report
- Submit final report no later than May 31, 2000.

Annex B: Medical Record Family File Folder Review Checklist

Name of Faculty:	
Date:	
Reviewer and Co-Reviewer:	
Medical Record File Number:	

Ranking: 1= Not Appropriate; 2= Marginal; 3=Appropriate; 4= N/A (Not Applicable)					
FAMILY FILE FOLDER	Jacket 1	Jacket 2	Jacket 3	Jacket 4	Jacket 5
Social Work Cards					
ID					
Jackets					
History					
Physical Examination					
Vital Signs					
Treatment Documentation					
Patient Activity Card					
Vital Signs					
Complaint					
Diagnosis					
Preliminary					
Final					
Investigations (is there a return slip)					
Laboratory					
Radiology					
Legibility of Handwriting					
Encounter Form					
Complaint					
Diagnosis					
Preliminary					
Final					
Investigations (is there a return slip)					
Laboratory					
Radiology					
Legibility of Handwriting					

Referral Form					
Complaint					
Diagnosis					
Preliminary					
Final					
Investigations (is there a return slip)					
Laboratory					
Radiology					
Legibility of Handwriting					
Pharmacy					
Prescription dispensed?					
Coded					

Annex C: Medical Record File Folder Content

Front of Patient Identification Card with Family Folder number

Back of Patient Identification Card with Family Folder number (listed – governorate, city, village, house #, father's name and address)

Social Worker Assessment of the Family

محافظة : — — — — الإدارة :
وحدة/مركز طب الأسرة — — — — —

نموذج	رقم الملف العائلي
٣/ع						

وصف حالة مسكن الأسرة

التاريخ : - - /- - /- - -

حالة المسكن

مسلح ☐ أحمر ☐ طوب نيء ☐ أخرى (تذكر) : - - - - - - - - - - - -

عدد الحجرات بالمنزل - - - - - - - - - - عدد الحجرات المخصصة للنوم - - - - - - - - - -

الإضائة المستخدمة

كهرباء ☐ كيروسين ☐ أخرى (تذكر) : - - - - - - - - - -

وجود مصادر خطورة : فرن بوتاجاز ☐ فرن حطب ☐ أخرى تذكر : - - - - - - - - - -

موارد مياه الشرب

عام بالمسكن ☐ طلمبة داخل المسكن ☐ طلمبة خارج المسكن ☐

عام خارج المسكن ☐ أخرى تذكــــــر ☐

- في حالة وجود طلمبة يذكر بعدها عن المرحاض (....... متر)

النظافة العامة في المسكن

نظيف ☐ وجود قمامة في أرجاء المنزل ☐ وجود مياه راكدة بالغرف أو الحوش ☐

مصادر التلوث خارج المسكن (تذكر) : -

التخلص من القمامة

في الشارع ☐ بالحرق ☐ إلقائها في الترعة أو النهر ☐

صناديق الزبالة ☐ أخرى (تذكر) : - - - - - - - - - - - - - -

التخلص من الفضلات

مكان مفتوح ☐ دورة مياه صرف صحي ☐ دورة مياه طرنش ☐

وجود حيوانات أليفة داخل المنزل : نعم ☐ لا ☐

وجود قوارض أو حشرات : نعم ☐ لا ☐

الحظيرة

داخل المسكن ☐ خارج المسكن ☐ لا يوجد ☐

رقم الملف العائلي	نموذج
						٤ / ع

محافظة : - - - - الإدارة : - - - -
وحدة/مركز طب الأسرة - - - - -

إستمارة بحث اجتماعى للأسرة

مصادر الدخل : ثابت☐ متغير☐ متوسط الدخل السنوى : - - - - - - - - - - - -
تاريخ بحث الحالة : / / ١٩
الظروف الإجتماعية : -
- -
- -
- -
- -
- -
- -
- -

التدخلات : -
- -
- -
- -

الجهات التى تم التعاون معها : - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

المتابعـــة : -
- - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

الأخصائية الإجتماعية الإســـم : - - - - - - - - - - -
التوقيـــع : - - - - - - - - - - -

إعتماد مدير المركز
- - - - - - - - - - -

Physical Examination Form

الفحص الشـــامل
Physical Examination

Body Built - - - - - - - : الجسم Weight - - - - - - - : الوزن Length - - - - - - - : الطول
Temp. - - - - - - - - - - : الحرارة Pulse - - - - - - - : النبض B.P. - - - - - - - - : ضغط الدم
NB put "N" for Normal findings / specify the abnormal findings / put "ND" if the exam. is not done.

HAIR & SCALP		Hair Distribution Others		
EYES	Eyes Lids Conjunctiva Sclera	Cornea Pupil Movement	Visual Acuity	Rt. eye Lt. eye
E.N.T	Ear	Ear Discharge Drum Hearing	Nose Throat	Nasal septum Others
TEETH				
NECK		Stiffness	Thyroid	Masses
UPPER LIMBS		Tremors Clubbing	Joints	Stiffness Deformity Range of Movement
THORAX	Lungs	Expansion Breath Sounds Adventitious Sounds	Heart	Apical Pulse Heart Sound Murmers
SPINE		Deformity Range of Movement		Others
ABDOMEN		Contour Tenderness Rigidity	Liver Spleen Kidney	Hernial orifices Masses
LOWER LIMBS		Oedema Clubbing	Ulcers Deformity Range Of Movement	Others
SIGNIFICANT CLINICAL FINDINGS				

اسم الطبيب : - - - - - - - - التوقيع : - - - - - - -

First Visit Medical Assessment

(date, name, family history, blood pressure, blood sugar, infections, diseases, blood type, hemoglobin count, urine test results, stool test results)

محافظة : ـ ـ ـ ـ الإدارة : ـ ـ ـ ـ

وحدة/مركز طب الأسرة ـ ـ ـ ـ ـ

رقم الملف العائلي	رقم الفرد	نموذج
		١/ف

إستمارة فحص شامل
(الزيارة الأولى)

تاريخ الزيارة / / ١٩

الاسم : -

التاريخ المرضى للعائلة (يذكر علاقة المريض بصاحب الإستمارة) :

- درن ☐ -
- ضغط دم ☐ -
- سكر ☐ -
- أمراض قلب وشرايين ☐ -
- صرع ☐ -
- ربو شعبي ☐ -
- أمراض حساسية أخرى ☐ -
- أمراض دم (تذكر) ☐ -
- أورام (تذكر) ☐ -
- فشل كلوى ☐ -
- أمراض عقلية ☐ -

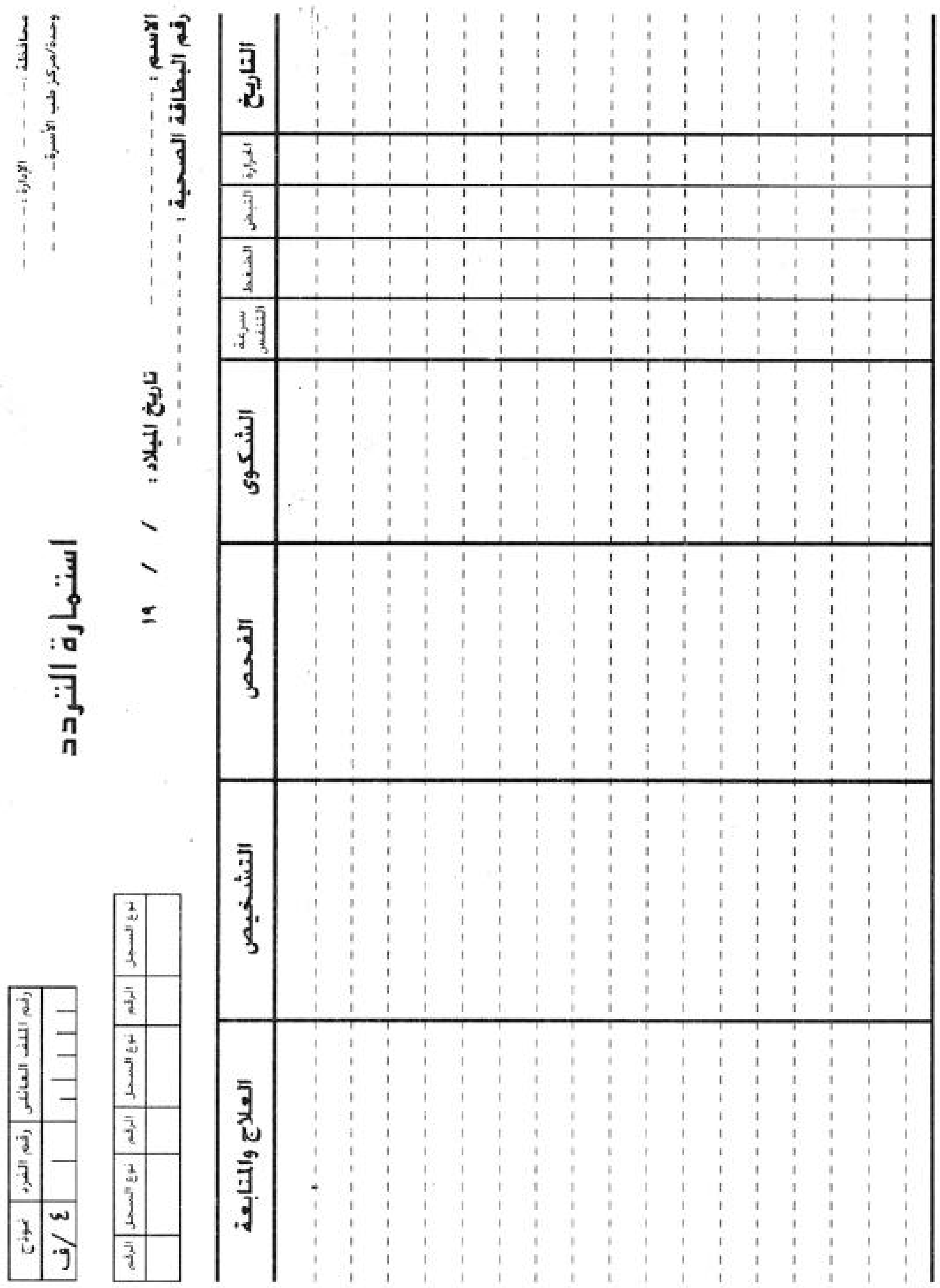
أخرى تذكر : -

- -

فحوصات معملية	نتيجة الفحص
فصيلة الدم	
الهيموجلوبين	
بول	
براز	

Record of Patient's Visits

(name, patient ID #, date, temperature, pulse, blood pressure, complaint, tests & investigations ordered, results, treatment & follow up)



نموذج ٤/ف | رقم الفرد | رقم الملف العائلي

الرقم | نوع السجل | الرقم | نوع السجل | الرقم | نوع السجل

محافظة: ---- الإدارة: ----

وحدة/مركز طب الأسرة ------

استمارة التردد

الاسم: ---------- تاريخ الميلاد: / / ١٩

رقم البطاقة الصحية: ----------

التاريخ	الحرارة	النبض	الضغط	سرعة التنفس	الشكوى	الفحص	التشخيص	العلاج والمتابعة

Annex D: Encounter Form

محافظة : الأسكندرية
الإدارة :
وحدة / مركز طب الأسرة :

FAMILY HEALTH FUND

مسلسل
Serial

نموذج زيارة طبية

الرقم الموحد :		رقم التأمينات الاجتماعية :	
اسم المريض :		الرقم القومي :	
تاريخ الميلاد :		رقم التأمين الصحي :	
النوع :	ذكر ○ أنثى ○	قانون تأمين رقم :	

تاريخ الزيارة :	وقت الزيارة :	عيادة طب الأسرة رقم :	اسم الطبيب :

وقت الدخول للطبيب :	وقت الخروج من الوحدة الصحية :	كشف ☐ استشارة ☐	

Diagnosis التشخيص

Diagnosis	ICD 10 code

Procedures الأبحاث

Medical Visit		LAB Visit		X-RAY Visit	
Brief : under 10 minutes					
Intermediate : 10-20 m					
Extended : over 20 m					
Referred Patient					
To :			Others		Others

Pharmacy الصيدلية

	Drug Name	Quantity	Form	Duration	Doses/d
1-					
2-					
3-					
4-					

Comments ملاحظات

توقيع الطبيب : ..... توقيع الممرضة : .....

Annex E: Referral Form

Governorate : Alex
District :
Family Health Center / Unit :

FAMILY HEALTH FUND

Referral Form

Patient # : | Social # : | National # : | HIO # :

Patient Name : | First : | Middle : | Family Name :

Date of Birth : / / Gender : M ☐ F ☐

Family Clinic # : | Referring Family Physician Name : | Encounter Reference # :

Date : / / Time : : am / pm

Initial Findings / Diagnosis

ICD 10 code

Clinical Examination :

Vital signs : Bp : ..... / ..... mmHg Pulse : ..... / min Temp : c

Respiratory rate : ..... / min Level of Consciousness : .....

Bleeding : mild ( ) moderate ( ) Sever ( ) Site : .....

General Examination : Chest : ..... Heart : ..... Abdomen : .....

Local Examination : .....

Interventions :

Lab. Investigations : Type : ..... Findings : .....

X - Ray : Type : ..... Findings : .....

Medications : ..... , ... , ... , ... , ...

Surgical Interventions : .....

Causes of Referral : Lack of resources ( ) Needs higher rank ( ) Emergency ( )

Preliminary diagnosis : .....

Referred To

	Speciality	Name of specialist
☐ FHC		
☐ Other Specialist		
☐ Hospital Name :		

Doctor's Signature :

Report from Specialist / Hospital to FP

Date : ..... / ..... / ..... **Time :** ..... , ... am / pm

Interventions :

Outpatient Treatment ( ) Inpatient Admission ( ) Days of stay ..... day (s)

Lab. Investigations : Type : ..... Findings : .....

Type : ..... Findings : .....

Medications : ..... , ... , ... , ... , ...

Surgical Interventions : .....

Final Diagnosis :.....

Recommendations : Line of treatment : Main Drug ..... Dose : ..... Time : .....

Dressing : Supplies used ..... , ... , ... Frequancy :.....

Others : .....

Specialist name :..... Signature :.....